

## **APPENDIX S**

### **RESPONSES TO COMMENTS ON DRAFT EIS**

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## Appendix S

### Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses

| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
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| 1         | Cultural        | Cultural resources mitigation measures proposed by the BLM have been shown to be ineffective by the findings of the recent dust study.   | <p>Since publication of the WTP EIS the BLM in consultation with consulting parties have developed a Programmatic Agreement (WTP PA), which includes mitigation measures specifically designed to minimize project impacts on cultural resources, including impacts from dust. The anticipated effectiveness of these additional measures is evaluated under Alternative E.</p> <p>In an effort to better understand the effects of dust and dust suppression chemicals (magnesium chloride) on rock art, BBC voluntarily agreed to fund the Dust Study that is included in the EIS as Appendix G. One of the objectives of the Dust Study was to research precedents, if any, for scientific studies of the effects of dust on rock art. The literature search confirmed that there is no project that sets a precedent or provides an exact model for a dust study in Nine Mile Canyon. Therefore, the Dust Study conducted for this EIS is pioneering research.</p> <p>In accordance with CEQ regulations (CFR 1502.22), the EIS has been revised to clearly disclose that the impacts of vehicle exhaust and vibration on cultural resources within the WTP Project Area are currently unknown. In the absence of site-specific data, the best available information has been used to predict the impacts of vibration on cultural resources which could occur under the Proposed Action (see Section 4.12.1.2). Similar discussions can be found in each of the corresponding alternative-specific impact analyses.</p> <p>The Dust Study (Appendix G) provides a representative sample of baseline site conditions from which the spatial extent of the dust problem can be generally understood. This is especially true given that the majority of the cultural sites is distributed throughout Nine Mile Canyon and its side canyons in close proximity to the road, and would be subject to the same impacts both in terms of context and intensity as those that were evaluated as part of the field sampling completed for the dust study.</p> |
| 2         | Alternatives    | BLM has improperly dismissed several alternative access routes from detailed consideration that could reduce and even eliminate the adverse effects of industrial traffic on rock art sites in Nine Mile Canyon. | See response to comment #34.   |

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| 3         | Alternatives    | The DEIS fails to put forth concrete measures and alternatives that will protect historic properties in Nine Mile Canyon from the adverse effects of the project. | <p>Since publication of the WTP EIS the BLM in consultation with consulting parties have developed a WTP PA, which includes mitigation measures specifically designed to minimize project impacts on cultural resources, including impacts from dust.</p> <p>The FEIS has been modified to include a discussion of additional mitigation measures that could minimize impacts on historic properties. These measures include analysis of the Trail Canyon access route (under Alternative C), a dust suppression plan (Appendix R), and a suite of mitigation measures that would minimize the effects of development. Specifically, under Alternative E and the WTP PA (Appendix T) the operators would be required to:</p> <ul style="list-style-type: none"> <li>• Provide funding for a Class II cultural resource inventory;</li> <li>• Provide funding for a cultural resource monitoring plan;</li> <li>• Provide funding for conservation treatments and continuing research;</li> <li>• Expand of current dust suppression efforts and dust monitoring in the revised APE, including development of a formal Dust Suppression Plan by the Nine Mile Canyon Road Committee;</li> <li>• Increase personnel training; and</li> <li>• Develop visitor interpretation/enhancement sites.</li> </ul> <p>The anticipated effectiveness of these additional measures is evaluated under Alternative E.</p> |
| 4         | NEPA            | The WTP Project as proposed in the DEIS violates the NHPA, NEPA, and FLPMA.   | See responses to more specific comments.  |
| 5         | Cultural        | The Price Field Office has denied the NTHP's request to participate as a consulting party based on an erroneous legal interpretation of Section 106 regulations.  | See responses to comments #8.   |
| 6         | Cultural        | The DEIS is not adequate to fulfill the requirements of Section 106.  | <p>The NHPA and the regulations at 36 CFR Part 800 govern BLM's cultural resource management program. The regulations provide specific procedures for consultation between the BLM and the SHPO. The Section 106 consultation process with the Utah SHPO, initiated in April of 2006, has been ongoing throughout the NEPA process.</p> <p>In December of 2008, and in consultation with the SHPO, the BLM determined that implementation of the Agency Preferred Alternative could have an "Adverse Effect" on historic properties within the WTP Project Area.</p> <p>In order to resolve potential adverse effects, the BLM, in coordination with the ACHP and SHPO, determined that it would be appropriate to develop a PA for the project. Development of the WTP PA (Attachment 4) was initiated in January 2009 with consulting parties.</p> <p>In January of 2009, the BLM invited Carbon and Duchesne Counties, the project proponent, the State of Utah, SITLA, the NTHP, NMCC, URARA, UPAC, CPAA, USAS, BCS Project, and SUWA to be consulting parties under Section 106 of the National Historic Preservation Act (NHPA).</p> <p>The signing of the WTP PA on January 5, 2010 by all parties and its implementation concludes the Section 106 process.</p>   |

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| Comment #   | Topic/ Resource | Public Comment  | BLM Response                         |
| 7   | Cultural        | BLM incorrectly assumed that the public involvement process used for NEPA compliance can satisfy the agency's responsibility under Section 106 to involve consulting parties. | See responses to comments #6 and #8. |

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| 8         | Cultural        | In consultation with the SHPO and ACHP, BLM should identify organizations with a demonstrated interest in the undertaking's effect on historic properties to participate in the Section 106 process as consulting parties. | <p>This EIS has included a thorough and ongoing public participation process that demonstrates the BLM's compliance, in both the spirit and intent, with 36 CFR 800 and Section 106 of the NHPA.</p> <p>During May of 2006, the ACHP made a field visit to the WTP Project Area, including Nine Mile Canyon, with the BLM and SHPO to gain a better understanding of the Proposed Action and significant cultural resources. In addition, the ACHP was provided with a copy of the Class I Cultural Resource Literature Review (Whitfield et al. 2006). On August 17, 2006, the ACHP was sent a letter providing clarification of BLM's decision regarding consulting parties. During the public comment period, the ACHP was sent a copy of the DEIS for review; however, the BLM did not receive any written or verbal comments from the ACHP. On May 16, 2008, the BLM received a letter from the ACHP requesting an update on how the BLM was meeting its responsibilities under Section 106 of the NHPA. The BLM sent a formal response to the ACHP on June 2, 2008.</p> <p>On September 29, 2008, the BLM received a letter from the ACHP wherein they notified the BLM of their decision to formally participate in consultation pursuant to the criteria for involvement established in Section 4(b)(3) of the BLM Nationwide Programmatic Agreement regarding "highly controversial undertakings" and Section VII(A)(3) of the Utah State Protocol.</p> <p>In consultation with the SHPO, the BLM determined that implementation of the Agency Preferred Alternative could have an 'Adverse Effect" on historic properties within the WTP Project Area. The "Adverse Effect" was originally defined as the dust that is generated by the industrial traffic that settles on and visually affects the visual appearance of the rock art panels pursuant to CFR 36 Part 800.5(a)(2)(v).</p> <p>In order to resolve potential adverse effects, the BLM, in coordination with the ACHP and SHPO, determined that it would be appropriate to develop a PA for the project. Development of the WTP PA was initiated in January 2009 with consulting parties. Those that were invited and elected to participate include the NTHP, NMCC, URARA, CPAA, USAS, BCS Project, and SUWA. In addition to these organizations, the BLM, ACHP, SHPO, BBC, State of Utah's Governor's Office, Carbon and Duchesne counties, and SITLA also served as consulting parties for the WTP PA. All Tribes that had previously shown interest in the WTP Project were also invited to join in development of the WTP PA. However, only the Ute Indian Tribe elected to take part. During the course of consultation, a representative from the ACHP was present at every meeting. The ACHP signed the PA on January 5, 2010. The signing of the PA and its implementation concludes the Section 106 process.</p> <p>Furthermore, throughout the EIS public involvement process, the BLM has sought out information from individuals and organizations with knowledge of, or concern with, historic properties in the area. This EIS has also included a thorough and ongoing public participation process that demonstrates the BLM's compliance, in both the spirit and intent, with 36 CFR 800.</p> <p>A summary of public participation and agency consultation and coordination, including the Section 106 process, is contained in Sections 6.2 and 6.3.</p> |

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| 9         | Cultural        | After identifying consulting parties in consultation with the SHPO and ACHP, the BLM should convene a meeting with all parties, and learn to engage in consultation concerning the effects of the project on historic properties, in a manner consistent with 36 CFR Part 800.  | See responses to comments #6 and #8.   |
| 10        | Cultural        | The DEIS does not contain the information necessary to provide the public with a meaningful opportunity to comment on the effects of the project on historic properties, including information about the APE, the identification of historical properties within the APE, and the adverse effects of the project on historic properties within the APE. | <p>As discussed in 36 CFR Part 800.2, "The agency official may use the agency's procedures for public involvement under NEPA or other program requirements in lieu of public involvement requirements in subpart B of this part, if they provide adequate opportunities for public involvement consistent with this subpart." Throughout the EIS public involvement process, the BLM has sought out information from individuals and organizations with knowledge of or concern with historic properties in the area.</p> <p>A complete description of the agency's public involvement procedures is included in Section 6.3 of the FEIS.</p> <p>See also responses to comments #8 and #700.</p> |
| 11        | Cultural        | BLM has failed to comply with Section 106 regulations, which require Federal agencies to "provide the public with information about an undertaking and its effects on historic properties and seek public comment and input."   | See response to comments #8 and #10.   |
| 12        | Cultural        | The DEIS neither references 36 CFR 800.8, which authorizes use of Section 106, nor does it comply with specific criteria of 36 CFR 800.8. Thus, it is unknown how or when the BLM will involve the public in the Section 106 process for the WTP project.   | See responses to comments #8 and #10.  |
| 13        | Cultural        | Section 106 regulations require the development of a plan to involve the public (36 CFR 800.8[e]). The DEIS neither references nor describes such a plan and there is no indication that one has been developed.  | See response to comments #8 and #10.   |
| 14        | Cultural        | The BLM's plan must involve the public at each stage in the Section 106 process.  | See response to comments #8 and #10.   |

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| 15        | Cultural        | The DEIS contains no information concerning the APE, and fails to state whether the "nearly 1,000 sites in the WTP Project Area" include all of the sites potentially affected by the project.     | <p>The delineations of the APEs in the DEIS were determined by the BLM in consultation with SHPO, as defined in 36 CFR 800.4(a) and 800.16(d). However, In December of 2008 the BLM, in consultation with the SHPO, determined that implementation of the Agency Preferred Alternative could have an "Adverse Effect" on historic properties in the WTP Project Area. Within the determination letter, which was submitted to the SHPO and ACHP, the BLM recommended development of the WTP PA. In January of 2009, the BLM invited all organizations and individuals that had previously expressed interest in being consulting parties for the project to participate in development of the WTP PA. Those that were invited and elected to participate include the NTHP, NMCC, URARA, CPAA, USAS, BCS Project, and SUWA. In addition to these organizations, the BLM, ACHP, SHPO, BBC, State of Utah's Governor's Office, Carbon and Duchesne counties, and SITLA also contributed to development of the PA. All Tribes that had previously shown interest in the WTP EIS were also invited to join in development of the WTP PA. However, only the Ute Indian Tribe elected to take part. During the WTP PA process the BLM 1) increased the size of the APE; 2) revised their "Adverse Effects" determination; and 3) developed mitigation measures which would allow natural gas development to occur while minimizing impacts to cultural resources. The revised APE, shown on Figure 3.12.4, has been expanded to include the north rim of Nine Mile Canyon; Gate Canyon from the east to west rim; and Nine Mile Canyon from Sheep Canyon (project boundary) west to its junction with Minnie Maud Creek. A complete description of the revised APE boundary can be found in Appendix T- WTP PA. The Agency Preferred Alternative has also been modified to include the WTP PA stipulations as a requirement under the alternative.</p> <p>Under all alternatives, the configuration of well locations, associated access roads and pipelines, and ancillary facilities results in potential conflicts with known cultural resources. For each of the alternatives, a table has been developed to disclose potential conflicts with resources that have been previously determined as eligible for inclusion in the NRHP (for example, see Table 4.12-1). Eligible properties must either be avoided or impacts to the resource must be otherwise mitigated. Avoidance and other mitigation recommendations are presented in Appendix N. Based on adherence to the guidelines and procedures in Appendix N, and the track record of site avoidance in previous gas production within the WTP Project Area, the potential for direct impacts to cultural resources is relatively low.</p> |
| 16        | Dust Study      | The DEIS fails to provide the public with the final results of the dust study, which contains information necessary for the public to fully evaluate the project's effects on historic properties. | See response to comment #17.   |



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| 17        | Dust Study      | <p>The dust study in the DEIS did not include the final report or the final laboratory results, which suggest that magnesium chloride may be affecting rock art sites in Nine Mile Canyon on a much broader scale than indicated in the preliminary results. Consequently, the DEIS lacks the information necessary for the public to fully evaluate the extent and nature of the project's effects on historic properties.</p> | <p>The BLM did not omit the final report or laboratory results from the DEIS. A final report with laboratory results was not available at the time of publication of the DEIS. However, a copy of the completed dust study with laboratory results has been included in the FEIS as Appendix G.</p> <p>There is presently no substantive or scientifically-sound evidence that magnesium chloride used for dust abatement in Nine Mile Canyon has or would become a vector of deterioration of the Canyon's rock art. However, because there is potential that this suppressant may cause damage, under Alternative E and the WTP PA (Appendix T), BBC, Carbon County, and Duchesne County have agreed to discontinue the use of magnesium chloride as a form of dust suppression within canyon bottoms in the APE unless scientific research demonstrates there are no negative effects on rock art. In addition, as part of the WTP PA, BBC has committed to conduct additional research which will investigate the potential impacts of dust on historic properties. Specifically, the study will investigate what constituents are present in various dust samples taken from rock art panels and whether the dust is causing physical degradation of the rock art (see Appendix T, Stipulation (B)). In addition, under Alternative E and the WTP PA (Appendix T), enhanced dust suppression with alternative suppressants would be required throughout the revised APE, which is larger in size than the Project Area. In addition, under the WTP PA BBC has agreed to fund conservation treatments, which would include developing systems for removing dust from panels that have been affected by past oil and gas development that will be tested by a rock art conservator selected by the BLM.</p> <p>In addition, see responses to comments #3 and #8.</p> |
| 18        | Cultural        | <p>The DEIS discussed the direct, indirect, and cumulative impacts of the project on individual sites, but omitted a discussion of the impacts on the NMCAD.</p>  | <p>When the EIS was initiated, the nomination form for the NMCAD did not exist. However, in 2009, the NMCAD was determined by BLM and the Utah SHPO to be eligible for the National Register of Historic Places based upon a nomination developed by the CPAA, which was submitted on February 7, 2008. Since that time, the BLM has prepared cover documentation in support of an MPS for Nine Mile Canyon including historic, rock art, and West Tavaputs Adaptation contexts. Using these MPS contexts, 63 sites in Nine Mile Canyon, were listed on the National Register of Historic Places on November 30, 2009. The BLM has committed to prepare and submit 100 recorded individual sites on BLM lands annually over the next 5 years. The impact of proposed development on eligible and listed sites is discussed in Section 4.12 of the FEIS.</p>   |
| 19        | Cultural        | <p>Section 106 requires an assessment of the project's impacts not only on individual sites, but also on the range of historic properties located within the APE and the NMCAD.</p> <p>BLM's failure to assess these effects is a violation of the Section 106 process.</p>   | <p>See responses to comments #8, #15, and #1311.</p>  |

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| 20        | Cultural        | The WTP project meets the criteria of adverse effect in the Section 106 regulations because it will directly and indirectly alter the characteristics of historic properties and will also "diminish the integrity of the properties' location, design, setting, materials, workmanship, feeling, or association." | See response to comment #1311.   |
| 21        | Cultural        | The use of Nine Mile Canyon Road by high volumes of industrial truck traffic will adversely affect the rock art sites eligible for listing in the National Register.   | <p>See response to comment #1311. Throughout this EIS process, the BLM has taken a hard look at the potential effects of traffic and dust on cultural sites and to develop alternative design features and mitigation measures to reduce traffic-related impacts and project-related dust. The FEIS has been modified to include a discussion of additional mitigation measures that could reduce the effects of project traffic on rock art sites. These measures include analysis of the Trail Canyon access route (under Alternative C), a dust suppression plan (Appendix R) under Alternatives C and D, and a suite of mitigation measures that would evaluate the effects of project traffic on rock art sites under Alternative E and the WTP PA (Appendix T), including:</p> <ul style="list-style-type: none"> <li>• Providing funding for a cultural resource monitoring plan;</li> <li>• Providing funding for conservation treatments and continuing research;</li> <li>• Expansion of current dust suppression efforts and dust monitoring in the revised APE, including development of a formal Dust Suppression Plan by the Nine Mile Canyon Road Committee;</li> <li>• Increasing personnel training; and</li> <li>• Development of visitor interpretation/enhancement sites.</li> </ul> <p>In addition, following publication of the DEIS, the Nine Mile Canyon Road Committee was formed. The Committee was created and is chaired by Carbon County. Other participating entities include Duchesne County, representatives of the State of Utah, the BLM, Operator(s), and historic preservation organizations (i.e., Nine Mile Canyon Coalition). The cooperative goal of the Committee is to develop and recommend a long-term implementation plan to improve and maintain the Nine Mile Canyon Road. Per the Committee's charter, meetings will be held every 3 months.</p> |
| 22        | Cultural        | Visual modifications and elevated noise levels caused by project traffic will have a "substantial" effect upon the integrity of contributing components and the NMCAD as a whole.  | See response to comment #18.   |
| 23        | Cultural        | BLM cannot support a "no adverse effect" determination with discredited mitigation measures.   | See responses to comments #8 and #1311.  |

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| 24        | Cultural               | In consultation with the SHPO and ACHP, the BLM should apply the criteria of adverse effect in 36 CFR 800.5 (a) to historic properties in Nine Mile Canyon. When performing this assessment, the BLM should assess the direct, indirect, and cumulative effects of the WTP project, including the effects of truck traffic, dust, chemical dust suppressants, visual modifications, and noise. If the BLM were to propose a finding that the project will not adversely affect historic properties, then it should notify the public pursuant to 36 CFR 800 (a)(4). | See response to comments #1311.   |
| 25        | Cultural/ Alternatives | BLM cannot avoid, minimize, or mitigate the adverse effects of the project when it has made decisions through the NEPA process that restrict its ability to consider a full range of alternatives.  | See response to comments #3 and #217.   |
| 26        | Cultural               | The DEIS states that the BLM will consider the final results of the dust study and develop a mitigation plan after issuing the ROD for the FEIS (DEIS at 2-104). Doing so limits the BLM's ability to consider the full range of measures to avoid, minimize, or mitigate the adverse effects of dust and magnesium chloride on historic properties in Nine Mile Canyon, including the NMCAD and the hundreds of rock art sites in Nine Mile Canyon that are eligible for the National Register.  | See responses to comments #1, #3, #8, #17, and #18.   |
| 27        | Cultural               | Preparation of an ethnographic study does not mitigate the potential impacts to rock art panels.  | As stated in Section 4.12.1.2, the ethnographic study is not considered mitigation for potential impacts to the rock art panels. As part of the WTP PA commitments (Appendix T), the BLM is completing an ethnographic study addressing Hopi traditional use of the West Tavaputs region. The BLM will provide this confidential information only to the Hopi Tribe.  |
| 28        | Cultural               | BLM must engage in consultation with the Hopi and other interested Tribes, and seek to resolve their concerns about the adverse effects of WTP project traffic on properties of religious and cultural significance in Nine Mile Canyon. As part of Tribal consultation, BLM should provide the Hopi and other interested Tribes with any information about the traffic in Nine Mile Canyon, including the final laboratory results and the final report of the dust study.   | Section 6.2.1 clearly describes the BLM's consultation process with Native American Tribes, including the Hopi Tribe, which was initiated in October of 2005 and continues to date. In addition, Stipulation #3 of the WTP PA (Appendix T) requires the BLM to continue to consult with appropriate Indian Tribes regarding historic properties of religious and cultural significance, in accordance with the NHPA, the NAGPRA, ARPA, AIRFA, Executive Order 13007 Sacred Sites, and their implementing regulations. Furthermore, as part of the WTP PA commitments, the BLM is completing an ethnographic study addressing Hopi traditional use of the West Tavaputs region. The BLM will provide this confidential information only to the Hopi Tribe. |

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| 29        | Alternatives    | The DEIS lacks an adequate range of reasonable alternatives because the BLM has failed to evaluate alternative access routes for truck traffic to reach the WTP. Therefore, the DEIS violates the NEPA.   | See response to comment #34.  |
| 30        | Alternatives    | The DEIS fails to include a detailed evaluation of alternative access routes for trucks, and/or an alternative that would use a combination of access routes.   | See response to comment #34.  |
| 31        | Alternatives    | The DEIS lacks a detailed analysis of alternative access routes including the Bruin Point Route and route through Trail Canyon, even though these alternative routes have the potential to reduce the significant direct, indirect, and cumulative impacts of project traffic on rock art in Nine Mile Canyon.  | See response to comment #34.  |
| 32        | Alternatives    | Diverting project traffic away from Nine Mile Canyon through alternative access routes would minimize most, if not all, of the adverse effects on the rock art caused by dust and magnesium chloride.   | See response to comment #34.  |
| 33        | Alternatives    | The DEIS fails to evaluate an alternative involving a combination of access routes as a means of avoiding or mitigating the effects of truck traffic on rock art sites in Nine Mile Canyon. As a Federal Court of Appeals has ruled, an agency violates the "rule of reason" when it determines that an alternative travel route does not independently meet the project's purpose and need without also evaluating a "piecemeal option" - a combination of alternative travel routes, the use of which would, in the aggregate, satisfy the purpose and need of the project. Because the BLM failed to evaluate a "piecemeal option" of alternative access routes to the project, and this option would meet the purpose and need, the DEIS violates NEPA. | See response to comments #34. |

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| 34        | Alternatives    | The BLM should prepare a supplemental EIS and evaluate in detail the environmental impacts of alternative access routes to the WTP Project Area, including the Bruin Point Route, and a route through Trail Canyon. BLM should also evaluate in detail an alternative involving a combination of access routes. Further, the BLM should provide the public with the opportunity to review and comment on the supplemental analysis of alternative access routes. | <p>In response to comments received during the public comment period for the DEIS, the BLM reevaluated the suggested alternative access routes and determined that the construction and use of a new route through Trail Canyon should be analyzed in detail. This analysis has been added to the Transportation Impact Reduction Alternative (Alternative C). Under Alternative C, BBC and other operators would be required to construct a new access route through Trail Canyon. Trail Canyon is located directly north of Harmon Canyon, which serves as the primary access route to Prickly Pear Mesa. From State Road (SR)/US 40/191, the proposed Trail Canyon route would be accessed via Gate Canyon to the existing Rye Patch Road (approximately 3.5 miles north of the Gate Canyon/Nine Mile Canyon intersection). A conceptual location of this alternative access route is shown on Figure 2.4-1. Construction and use of a new route in Trail Canyon would reduce the total amount of industrial traffic in Nine Mile Canyon by approximately 22 percent. It would also nearly eliminate project-related traffic on the stretch of road in Nine Mile Canyon between Gate and Harmon Canyons. The BLM has revised the discussion of alternative access routes in the alternatives considered but eliminated from detailed analysis section (Section 2.8-6). The revised discussion provides the public with additional information supporting the BLM's decision to dismiss other alternative access routes from detailed analysis.</p> <p>In addition, as part of the Section 106 consultation process, and during development of the WTP PA, the BLM reopened discussion of alternative access routes with those organizations that had been invited to be consulting parties. During the course of consultation, a considerable amount of time was spent reevaluating alternative access routes that had previously been dismissed as well as exploring different options. These routes were also dismissed from detailed analysis as described in Section 2.8.6.</p> <p>Finally, the inclusion of the Trail Canyon Route in the FEIS directly responds to public comments and does not compel the BLM to prepare a supplemental EIS. To require a supplemental EIS every time new information comes to light would render agency decision-making intractable; the agency would always be awaiting updated information only to find the new information outdated by the time a decision is made.</p> |
| 35        | Cultural        | The DEIS does not contain sufficient baseline information to assess the effects of truck traffic generated by the project on rock art sites in Nine Mile Canyon. Without establishing baseline conditions, there is no way to determine what effects the project will have on the environment.   | As part of the WTP PA, the BLM will ensure implementation of a Cultural Resources Monitoring Plan. The objectives of the Cultural Resource Monitoring Plan are to determine baseline information about a sample of sites, monitor those sites over time, and collect samples of dust from sites to determine if dust is being deposited on made available to the public. If the BLM determines that dust is continuing to accumulate, the BLM will mitigate impacts as specified below in the WTP PA (Appendix T).  |

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| 36        | Cultural        | The DEIS lacks baseline information concerning the following aspects of the affected environment: (1) the proximity of documented rock art sites to project roads; (2) the condition of documented rock art sites; and (3) the effectiveness (or lack thereof) of prior efforts to reduce the harm from industrial traffic to rock art sites in Nine Mile Canyon.   | See responses to comments #35, #971 and #1313. There are 560 documented sites with rock art in the WTP Project Area. Figure 4.12-1 represents the distance from and elevation above the major project roads for most of the rock art sites in the WTP Project Area. Sites with rock art not included in the figure include those located more than 300 meters (984 feet) from the nearest major road. Sixty-seven documented sites with rock art, or approximately 12 percent of all sites with rock art, are in excess of 300 meters from the nearest major road. The majority of these sites are in Lower Nine Mile and Desolation Canyons. There are 212 sites with rock art within 50 meters (164 feet) of a major road; accounting for about 38 percent of all sites with rock art. Of these 212 sites, 183 sites are less than 50 meters above the associated road. The remaining 281 sites with rock art, or 51 percent, occur between 50 and 300 meters of a major road |
| 37        | Cultural        | Despite the inverse correlation between the condition of a rock art site and its proximity to a project road, the DEIS provides no information concerning the proximity of the vast majority of documented sites to roads in the WTP Project Area.  | See response to comment #36.  |
| 38        | Cultural        | With the exception of the five sites discussed in the interim dust study report, the DEIS lacks a description of the condition of documented rock art sites, particularly those located in close proximity to the roads that will be used by project-related truck traffic.   | See response to comment #35.  |
| 39        | Cultural        | The DEIS failed to discuss the deficiencies in the dust suppression methods employed following implementation of the West Tavaputs EA. Consequently, the public has no way of knowing that previously approved dust suppression methods- some of the very same methods proposed as mitigation in the DEIS- failed to mitigate the effects of industrial traffic on rock art sites in Nine Mile Canyon, and even exacerbated the harm. | See response to comment #971.   |
| 40        | Cultural        | In a supplemental EIS, the BLM should provide the public with baseline information concerning: 1) the proximity of rock art to roads that will be used by truck traffic; 2) the condition of documented rock art sites; and 3) the effectiveness of prior efforts to minimize or mitigate the effects of industrial traffic on rock art sites in Nine Mile Canyon.  | See responses to comments #35, #36, #971, and #1313.  |
| 41        | Cultural        | The DEIS lacks a reasonably complete discussion of measures to mitigate the effects of project traffic on rock art sites.   | See response to comment #1, #3, and #217.   |

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|-----------|----------------------|--|--|
| 42        | Cultural             | BLM failed to evaluate the effectiveness of the mitigation measures listed in the DEIS.  | The effectiveness of mitigation measures are discussed in each resource-specific analysis section.   |
| 43        | Cultural             | The DEIS proposes to mitigate the effects of project traffic primarily through the use of dust suppressants (water and chemicals) and the improvement or "hardening" of certain road segments. However, the DEIS provides virtually no detail concerning these mitigation measures. For example, the DEIS does not identify which chemicals would be used to suppress dust in Nine Mile Canyon. Nor does it discuss which road segments would be treated with chemicals or "hardened" with asphalt or chip-seal, or how the BLM would monitor compliance with the proposed mitigation.                               | See response to comment #651.  |
| 44        | Cultural/ Dust Study | BLM has impermissibly deferred the development of a mitigation plan, based on the findings and recommendations of the dust study, until after the issuance of the ROD for the FEIS. Doing so circumvents BLM's obligation under NEPA to discuss, measure, and mitigate the significant impacts of a project in an EIS, and forecloses the public's ability to review and comment on mitigation proposals. Consequently, the BLM must incorporate the findings and recommendations of the final dust study into the mitigation plan and circulate this document for public review and comment prior to issuing a ROD. | See responses to comments #3, #53, and #1316. In consultation with the SHPO, ACHP, and consulting parties, the BLM has developed a Programmatic Agreement, which includes additional mitigation measures for the project, including many of the recommendations from the Final Dust Study. The effectiveness of these measures is discussed under Alternative E in the FEIS. |
| 45        | Cultural             | The DEIS does not explain how the application of chemical dust suppressants and selective road improvements would succeed in mitigating the effects of industrial traffic on rock art where similar efforts failed in the past. Consequently, the mitigation measures listed in the DEIS are unsupported by any evaluation or evidence of their likely effectiveness.  | See responses to comments #651 and #971.   |
| 46        | Cultural             | In a supplemental EIS, the BLM should provide a detailed discussion of how and where it intends to implement dust suppression methods and selective road improvements.   | See responses to comments #651 and #1316.  |
| 47        | Cultural             | BLM should develop a mitigation plan based on the findings and recommendations of the dust study and provide the public with the opportunity to review and comment on the plan.  | See responses to comments #3 and #17.  |

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| Comment # | Topic/ Resource                              | Public Comment   | BLM Response   |
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| 48        | Cultural                                     | BLM should evaluate the effectiveness of the proposed dust suppression methods and selective road improvements, in light of the final dust study and any deficiencies in these previously identified mitigation measures.  | See responses to comments #3, #17, #651, and #971.   |
| 49        | NEPA   | The proposed project and each of the DEIS alternatives will limit the ability of the BLM to designate the Nine Mile Canyon ACEC, as proposed under Alternatives B, C, and D of the Draft Price RMP.  | See response to comment #52.   |
| 50        | NEPA/ Special Designations                   | Each of the action alternatives in the DEIS would cause "substantial impacts" on the "relevant and important" values of the potential Nine Mile Canyon ACEC.   | Impacts of the Proposed Action to the relevant and important values of the potential Nine Mile Canyon ACEC are discussed in Section 4.17.1.1. The impacts of other alternatives on these same values are also discussed under the corresponding alternatives analyses. |
| 51        | NEPA/ Special Designations/ Visual Resources | The nature and intensity of development proposed in the potential Nine Mile Canyon ACEC may prevent the BLM from designating all or portions of the ACEC as VRM Class II or III as proposed in the Draft RMP.  | See response to comment #52.   |
| 52        | NEPA   | BLM may not approve the proposed project under any of the action alternatives until the Price RMP is complete. If the BLM intends to approve the project prior to completing the EIS process for the Price RMP, it should describe in detail and provide the public with the opportunity to review and comment on the steps it will take to ensure that alternatives for the proposed Nine Mile Canyon ACEC will not be restricted in the Final EIS/RMP. | Since completion of the DEIS the BLM has completed the land use planning process. Conformance with the Price Field Office Record of Decision and Approved Resource Management Plan is included in Section 1.5.1 of the FEIS.   |



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| 53        | Dust Study      | The omission of the final report and laboratory results from the dust study corrupts and undermines the credibility of the DEIS and requires the preparation of a supplemental environmental analysis.  | <p>The BLM did not omit the final report or laboratory results from the DEIS. A final report with laboratory results was not available at the time of publication of the DEIS. However, a copy of the completed dust study with laboratory results has been included in the FEIS as Appendix G.</p> <p>The inclusion of new information does not always compel an agency to prepare a supplemental EIS, especially when the information is provided in direct response to public comments. To require a supplemental EIS every time new information comes to light would render agency decision-making intractable, always awaiting updated information only to find the new information outdated by the time a decision is made.</p> <p>In addition, as part of the WTP PA, BBC has committed to conduct additional research which will investigate the potential impacts of dust on historic properties. Specifically, the study will investigate what constituents are present in various dust samples taken from rock art panels and whether the dust is causing physical degradation of the rock art (see Appendix T, Stipulation (B)(ii).</p> <p>See response to comment #1316.</p> |
| 54        | Dust Study      | BLM provided the public with false information concerning the progress of the dust study. BLM's assertion that this information was not available during the preparation of the DEIS is not only incorrect. It also suggests that the BLM is willfully ignoring information that it is legally required to consider, evaluate, and provide to the public.   | See response to comment #53.  |
| 55        | Dust Study      | The DEIS overstates the actual scope of the analysis contained in the interim dust study. The interim report as the BLM claims in the DEIS does not evaluate or even acknowledge the impacts of vehicle exhaust on rock art sites in Nine Mile Canyon.  | <p>The FEIS has been revised so that it is clear that the BBC-funded dust study only includes an assessment of the effects of dust and magnesium chloride on rock art.</p> <p>Also see responses to comments #3 and #1243.</p>  |
| 56        | Dust Study      | The interim report limited its analysis to the chemical dust suppressant magnesium chloride. By contrast, in the DEIS, the BLM proposes to use a range of chemical dust suppressants on project roads, including lignins and synthetic polymers. Although the DEIS does evaluate the potential effectiveness of these chemicals as dust suppressants, neither the DEIS nor the interim Dust Study evaluate their effects on prehistoric rock art. | See responses to comments #17, #651 and #971.   |

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| 57        | Cultural/ Dust Study | In a supplemental EIS, the BLM should take a "hard look" at the direct, indirect, and cumulative impacts of dust, chemical dust suppressants and vehicle exhaust on rock art sites in Nine Mile Canyon. In doing so, the BLM should consider the final results of the dust study and should also obtain the necessary scientific information to assess the effects of vehicle exhaust.   | See responses to comments #53, #1240, and #1316.  |
| 58        | NEPA                 | In a supplemental EIS, the BLM should comply with the "unnecessary and undue degradation" standard of the FLPMA. First, the BLM should acknowledge that the project will cause unnecessary or undue degradation to historic resources. BLM should also develop and discuss the actions it will take to ensure that the project avoids causing unnecessary or undue degradation on historic resources in Nine Mile Canyon.  | See responses to comments #8, #217, and #1316.  |
| 59        | NEPA                 | The purpose and need statement in Section 1.2 of the DEIS is not legally adequate. BBC urges the BLM to expand this section to reflect compliance with all applicable statutes, including the FLPMA, Mineral Leasing Act, and NEPA. BBC requires that the BLM expand this text to further comply with the NEPA and court precedent, with respect to both BLM's purpose and need as required under FLPMA, and other laws, as well as with respect to BBC's purpose and need as the private applicant. | The purpose and need statement has been revised to include additional information regarding BLM's obligations under FLPMA.  |
| 60        | NEPA                 | BBC believes that it is helpful for the BLM to insert text into the DEIS to place BBC's proposed development within the context of BLM's responsibilities under the FLPMA's unnecessary and undue degradation standard that is applicable to BLM's management of this project.   | See response to comment #59.  |
| 61        | Special Designations | The extensive existing infrastructure and human imprints in the WSAs need to be made apparent in the DEIS. Figures do not include any of the several cherry-stemmed roads or drilling locations within these WSAs.   | Section 3.17.2 provides a description of the existing infrastructure within the Jack Canyon and Desolation Canyon WSAs. In addition, while at a small scale, figures do include existing roads, well sites, and cherry stems within the WSAs. |

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| 62        | Special Designations | It is important for the DEIS to reflect that after its extensive inventories, in 1991, pursuant to Section 603 of FLPMA, BLM did not recommend to Congress that the portions of the WSAs within the WTP Project Area should be designated as wilderness. Rather, BLM recommended to Congress that these areas be delisted as WSAs and should be reverted back to public lands available for multiple use on a going forward basis.   | The DEIS discloses, in Section 3.17.2.1, that the Jack Canyon WSA was not recommended for wilderness designation in the Utah Statewide Wilderness Study Report (BLM 1991). Upon review of the area, the BLM recommended that the entire area be released for uses other than wilderness. The DEIS discloses, in Section 3.17.2.2, that the 1991 Utah Statewide Wilderness Study Report recommended 224,850 acres of the Desolation Canyon WSA for wilderness designation, with the recommendation to release 65,995 acres for uses other than wilderness. A substantial portion of the area recommended for release falls within the WTP Project Area and the Peter's Point oil and gas Unit (5,350 acres of the non-recommended portion of the WSA). Regardless of the recommendations, BLM is obligated to manage the WSAs under the Interim Management Policy and Guidelines for lands under wilderness review until Congress either designates them as wilderness or releases them for other uses. |
| 63        | Socioeconomics       | The DEIS should account for the negative economic impacts from the restrictions that would be placed on mineral development. These impacts include: 1) local economic growth and benefits to the State of Utah, and Uintah and Carbon Counties; 2) tax revenues and royalty payments; and 3) consumer impacts including negative impacts to consumers by restricting oil and gas development.  | Section 4.13.5.1 estimates the sales value that would be lost if BBC were not allowed to develop within WSAs.<br><br>The negative economic impacts that development could have can be identified by comparing the Proposed Action with Alternative D (Conservation Alternative).   |
| 64        | Socioeconomics       | BLM should consider the economic impact of restricting oil and gas development on lands that allegedly contain wilderness characteristics before making its final decision on this EIS.  | The economic impacts that this restriction and other restrictions could have on development can be identified by comparing the Proposed Action with Alternative D (Conservation Alternative). A summary comparison of impacts is located at the end of Chapter 2 in Table 2.7-1.   |
| 65        | Recreation           | BBC urges BLM to include in narrative text of the DEIS (pg. 2-9) all of the measures BBC has taken to date to protect and enhance the Nine Mile Canyon experience. These measures include: 1) eliminating surface-laid pipelines that created visual impacts along the most commonly used travel corridors in the canyon; 2) eliminating a compressor station; and 3) reclamation and restoration of pre-existing well locations. To date, BBC has spent over 1 million dollars to fund and implement the above measures to the benefit of Nine Mile Canyon. | The suggested narrative was not included in the EIS because BBC funded these measures as mitigation for past actions. The public safety/recreation measure in the Agency Preferred Alternative is intended to mitigate impacts from future development activities.   |
| 66        | Directional Drilling | The DEIS needs to identify those individuals within the BLM that independently reviewed and analyzed the directional drilling analysis.  | Those within the BLM responsible for independently evaluating the directional drilling report have been added to the list of preparers included in Chapter 7 of the EIS.<br><br>The BLM's directional drilling expert has also written a certification of independent evaluation that is contained within the administrative record.   |

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| 67        | Directional Drilling | BLM should further document in the EIS and the ROD why it was not considering further directional drilling alternatives for WCAs, ACECs, WSAs, and the Nine Mile Canyon SRCMA.  | Under Alternative E, the use of additional directional drilling is considered as a measure to avoid impacts from well locations in canyon bottoms and WSAs (see Phase II Directional Drilling Analysis). Alternative E would eliminate a number of surface locations (see Figure 2.6-1). While not explicitly discussed in Appendix H, the increased use of directional drilling within existing and potential ACECs, WCAs, and the Nine Mile and Desolation Canyon SRMAs was considered in Phase I of the analysis, as these areas cover large portions of the WTP Project Area. |
| 68        | Alternatives         | Section 2.1- For purposes of this analysis, shallow horizons should be defined as the Blackhawk and shallower, with the deep being anything from the Mancos and below.  | The information provided has been added to the document.  |
| 69        | Alternatives         | Section 2.1.1.1- The range of distance between wellbores should be expanded to 8 to 20 feet.  | The information provided has been added to the document.  |
| 70        | Alternatives         | Section 2.1.1.2- This section should include a description of intervisible turnouts on dugways.   | A discussion on intervisible turnouts has been added to Section 2.1.1.2.  |
| 71        | Alternatives         | Section 2.1.1.3- Water lines may be constructed of polyethylene as well as steel. There are actually two pipelines serving the area. Both are under the control of Questar.   | The information provided has been added to Section 2.1.1.3.   |
| 72        | Alternatives         | Section 2.1.2- Drilling- A provision for flexibility in the type of drilling mud should be included.  | The information provided has been added to Section 2.1.1.2.   |
| 73        | Alternatives         | Section 2.1.2- Drilling- While BBC does not object to closed-loop drilling in certain areas, the disposition of drill cutting should be determined on a case-by-case basis.   | The EIS states that closed-loop drilling would be used in sensitive areas as determined on a site-specific basis by the Authorized Officer. The disposition of anticipated drill cuttings would be one of many factors to consider in making the decision as to whether or not closed-loop drilling is needed at a particular location.   |
| 74        | Alternatives         | Section 2.1.2- The text should be clarified to reflect that intermediate/production casing depth should be specified in each APD. Additionally, setting casing to total depth is not required in all circumstances.                 | The suggested changes have been incorporated into the EIS.  |
| 75        | Alternatives         | Section 2.1.2- Drilling for deep wells ranges between 46 and 60 days under typical conditions.  | The information provided has been added to the document.  |
| 76        | Alternatives         | Section 2.1.4- Reclamation windows are "weather permitting."  | As stated in the EIS, "Earthwork for interim reclamation would be completed within 6 months of completion of the final well on the pad or plugging. Following site preparation, reseeding would be completed during either the spring or fall planting season, when weather conditions are most favorable."<br><br>No change in the text.   |
| 77        | Alternatives         | Section 2.1.5.1- The description of production activities should clarify that the Proposed Action includes hauling water from individual production sites to the centralized water management facilities on each mesa using trucks. | The information provided has been added to the document.  |

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| 78        | Alternatives    | Section 2.1.5.2- The Dry Canyon facility currently has ten units installed.   | Section 2.1.5.2 is updated to reflect the current number of compressor units at the Dry Canyon facility.  |
| 79        | Alternatives    | Section 2.1.5.3- The reuse of pits, rather than reconstruction, would be determined on a case-by-case basis.  | The document currently states that on BLM-administered lands, pits may be reused if additional wells are drilled from the same well pad within a 1-year time frame.<br><br>No change in text.   |
| 80        | Alternatives    | Section 2.1.7- Water consumption may be reduced by recycling where feasible.  | The information provided has been added to the document.  |
| 81        | Alternatives    | Section 2.1.10- In certain limited circumstances, daily well site inspections may still be necessary even though telemetry is in place.   | The EIS conservatively accounts for daily well site inspections in several of the alternatives. As stated in the EIS, "wells would be equipped with telemetry equipment, generally making daily visits unnecessary."<br><br>No change in text.  |
| 82        | Alternatives    | Section 2.6.1.1- It should be made clear if long-term disturbance associated with roads is included in the 2,310-acre total unreclaimed surface disturbance figure.   | A detailed explanation about what is included in the surface disturbance thresholds can be found in Appendix C. The long-term disturbance associated with all new roads and realignments, widening or other improving of existing routes used for oil and gas, would be included in the total unreclaimed surface disturbance figure.   |
| 83        | Alternatives    | Section 2.6.1.2- Transporting all produced water from individual well sites to water management facilities exclusively via pipelines is not technically feasible. The Agency Preferred Alternative must include a provision for a case-by-case determination of the feasibility of construction produced water transport lines.   | Section 2.6.11.3 of the EIS has been revised to recognize that in limited circumstances transporting produced water from individual well locations exclusively via pipeline may not be technically or economically feasible. Although water/condensate would not be required in all circumstances, in order to provide a comparison between the environmental impacts of each alternative, under the Agency Preferred Alternative, it is still assumed that all produced water would be transported by pipeline (see Table 2.6-4).  |
| 84        | Alternatives    | Section 2.6.1.3- BLM should provide clarification in the EIS that BBC's leases are valid and existing rights, and that BLM may not lawfully impose NSO restrictions on BBC's leases within WSAs, other non-WSA lands (canyon bottoms), or the Desolation Canyon NHL.<br><br>Moreover, the EIS should also recognize that BLM may not restrict access to BBC's existing leases inside the Desolation Canyon and Jack Canyon WSAs. BBC's mineral leases contain an existing right of access to and from these leases. | BLM has analyzed a range of alternatives that were developed to directly respond to issues identified during the internal and public scoping process regardless of the Agency's ability to legally implement those alternatives (see response to comment #217). No decision has been made as to which alternative will be ultimately selected. Valid and existing rights will be considered in the ROD.<br><br>As discussed in NEPA's "40 Most Asked Questions", an alternative that is outside of the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or Federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered. |
| 85        | Alternatives    | Section 2.6.2.3- Burial of pipelines must be determined on a case-by-case basis. In some cases, such as on steep slopes and in areas where bedrock is close to the surface, pipeline burial will result in far more environmental impacts than a surface laid line.   | See response to comment #93.  |

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| 86        | Alternatives    | Section 2.6.3- The definition of sensitive area as applied to closed loop drilling is overly broad and subjective. It could be construed to include essentially all lands within the WTP Project Area. This requirement must be constrained to only those circumstances where closed-loop drilling will mitigate a specific identified significant adverse impact.   | As discussed throughout the EIS, sensitive areas include floodplains, wetlands, canyon bottoms, areas near cultural resources or archaeological sites, areas within important wildlife habitats, and areas protected by special designation. While the BLM recognizes that some of these sensitive areas are not easily defined, the use of closed-loop drilling would be determined on a site-specific basis during the APD process.   |
| 87        | Alternatives    | 2.6.11.3- It will not be practical or feasible to construct and operate water pipelines for this purpose in many circumstances. The preferred alternative should reflect flexibility to pipe or truck produced water on a case-by-case basis.  | See response to comment #83.  |
| 88        | Alternatives    | The requirement to haul material from cut slopes within WSAs in the project area is overly broad, prohibitively expensive, and beyond what can be required under undue degradation standards of the Wilderness Act. As part of the environmental protection measures to protect soils (Table 2.6-8), BLM will require operators to backhaul cut materials out of WSAs. The requirement would cause undue degradation rather than avoid it. This measure is an abuse of the undue degradation standard and would result in more harm to the WSA than keeping the material on-site and using it in site construction, as is customary. | <p>The referenced environmental protection measure has been revised to read: When constructing new roads on steep slopes within the WSAs, the operators would backhaul cut material to an appropriate location in the WTP Project Area, rather than side casting the materials into adjacent drainages.</p> <p>In addition to protecting soil and water resources in the Jack Creek watershed, this is reasonable visual resource mitigation measure for a VRM Class I management area.</p> |
| 89        | Alternatives    | Alternative D is not viable as it unduly infringes upon BBC's lease rights, particularly for BBC's pre-FLPMA leases in existing WSAs.  | See response to comment #84.  |
| 90        | Alternatives    | BLM should not restrict oil and gas development in any way on BBC's valid existing lease rights in the Desolation Canyon WSA.  | See response to comment #84.  |
| 91        | Alternatives    | The DEIS should include a table identifying these pre-FLPMA leases.  | A table has been included within Section 3.17.2.  |

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| 92        | Alternatives    | Alternative D is not a viable alternative for BLM to adopt in the ROD, given the extensive valid existing rights that exist in the WCAs, WSAs, ACECs, Potential ACECs, NHL and SRMA. Accordingly, the ROD and FEIS should recognize BBC's valid and existing lease rights and not seek to unduly restrict these rights through adoption of restrictive measures in the WCAs, WSAs, ACECs, Potential ACECs, NHLs, and the SRMA.  | No decision has been made as to which alternative will be ultimately selected. However, Alternative D would not prevent BBC and other operators from developing their valid and existing rights in areas other than the WSAs. See response to comment #84.   |
| 93        | Alternatives    | Burial of pipelines in the WTP Project Area will require trenching through bedrock and dynamite blasting, which will have a permanent impact on the environment despite remediation efforts. While burial of pipelines may be reasonable in certain areas such as canyon bottoms, burial of gathering lines to each individual well on the mesa tops is unreasonable, both in terms of the effort to minimize surface disturbances and the unwarranted time and expense of the installation of such lines. Installing buried water lines for the disposal of produced water on the mesa presents the same issue of unwarranted disturbance. | In accordance with WO IM-2007-021 (Integration of Best Management Practices into Application for Permit to Drill Approvals and Associated Right of Way), the BLM would require the burial of pipelines except in limited circumstances where locally established criteria would allow for surface laying the pipe. The criteria that would be used are discussed in Section 2.6.2.3 (pipeline construction). |
| 94        | Alternatives    | PCR is concerned that the assumptions underlying the BLM's analysis in the DEIS do not reflect PCR's development plans in the WTP Project Area.   | See response to comment #95.   |
| 95        | Alternatives    | Contrary to BLM's assumptions underlying the analysis in the DEIS, PCR's drilling plans are not front-end loaded. PCR plans to drill several exploratory wells in the early years of the WTP project, and if wells are successful, development will increase in succeeding years.   | The assumed rates of development applied in the EIS are not prescriptive thresholds to be enforced. Rather they provide for foreseeable development scenarios, based on BBC's proposal, on which to evaluate the effects. BBC's development scenario, which includes peak rates, is also used as a basis because it allows for a more conservative analysis.   |

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| 96        | Alternatives    | It is not clear how the total disturbance limitations proposed in the DEIS will accommodate PCR's drilling plans. As written, the EIS does not provide any method of allocating the surface disturbance limitation in the WTP Project Area. PCR requests that the BLM incorporate provisions in the FEIS to apportion allowable surface disturbance between operators based on a fair comparative factor, such as the ratio of an operator's acreage within the WTP Project Area to the total leased acreage, to ensure that a mechanism exists to protect all operators' ability to develop their leases to the same extent as other operators in the Project Area. | The WTP EIS will not be used to determine how allowable surface disturbance will be apportioned between operators. The BLM assumes that BBC and other operators would cooperatively negotiate how to allocate surface disturbance in a manner that ensures that all operators would have the ability to develop their leases.   |
| 97        | Alternatives    | With a successful drilling program, PCR may require separate compression facilities that are not provided for in the DEIS. At such time, PCR would make separate application for such compression, along with any environmental analysis determined necessary.   | The Proposed Action and other action alternatives were based on the development strategies prepared by BBC and other operators within the WTP Project Area before Petro-Canada obtained its leases. The development scenarios within the alternatives were understood to be based on the operators' existing data and their reasonable interpretation of those data. With the acquisition of new production data, changes to development scenarios, as set out in this EIS, could occur. Changes as expressed in this comment could require site-specific environmental analysis. |
| 98        | Alternatives    | PCR requests that the BLM recognize in the FEIS that PCR is currently in an exploratory phase of drilling and not the phase of full field development.   | Section 1.1 of the EIS has been modified to recognize that the WTP Project Area includes both exploratory and field development.<br><br>The BLM recognizes that the geology of some locations within the WTP Project Area is not proven, and that drilling within these areas would be exploratory in nature. Nonetheless, all development, including exploratory development, within the WTP Project Area would be subject to mitigation measures included within the EIS.   |
| 99        | Alternatives    | PCR requests that the BLM accommodate the development of PCR's existing leases, pursuant to its existing lease rights, if and when development is proposed.  | BLM recognizes that other lessees have valid and existing lease rights, and respond to their proposals appropriately.   |
| 100       | Alternatives    | BLM proposes to improve, reroute, and reclaim various access roads with the WTP Project Area. PCR requests that the BLM allow PCR to use the existing Harmon Canyon Road and Cottonwood Canyon Road and dugway to Flat Iron Mesa for exploratory drilling. PCR holds valid and existing ROWs over these access roads to leases. Further, PCR anticipates that these roads can accommodate the minimal amount of traffic that our exploratory development may generate.   | See response to comment #101.   |



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| 101       | Alternatives    | The DEIS does not identify PCR's ROW or explain how the proposal under Alternative E to reclaim the portions of Harmon Canyon Road that pass through Sections 14 and 22 T12S R14E will be reconciled with PCR's valid and existing ROW in this area. BLM may not terminate a FLPMA ROW unless the ROW holder abandoned or failed to comply with applicable laws or regulations, or any terms, conditions, or stipulations of the grant.  | To accommodate the access needs of field-development and protect the sage-grouse core winter use areas it has been determined by the BLM that certain road realignments would be necessary. As clearly described in Section 2.6.2.2, a comparable alternative access route would be provided to the area that would allow PCR access to their valid and existing leases.<br><br>As stated in FLPMA Title V Section 509(a), with the consent of the leaseholder, the BLM may cancel a ROW or right-of-use, and instead issue a new ROW.   |
| 102       | Alternatives    | The DEIS does not explain how costs for constructing the new road would be allocated or, if funded by operators, how costs would be apportioned between operators.   | While this comment is outside of the scope of NEPA, it should be noted that the WTP EIS will not be used to determine which parties would be responsible for costs associated with project implementation and mitigation. The BLM assumes that BBC and other operators would cooperatively negotiate the costs of reclaiming and realigning roads, as proposed within the range of alternatives considered in the EIS.   |
| 103       | Alternatives    | PCR requests that the FEIS include a provision allowing PCR to use the existing Harmon Canyon Road to access locations for exploratory drilling on our leases.   | See responses to comments #98 and #101.  |
| 104       | Alternatives    | Under Alternative E, the BLM would permit BBC and other operators to improve the existing Cottonwood Canyon Road and dugway to Flat Iron Mesa. Additionally, the BLM would allow the construction of a new route. The new road would be used as an uphill route and the existing dugway as a downhill route. The rerouted road would cross extremely complex topography and, accordingly, would be difficult and expensive to construct. The DEIS does not clearly explain the BLM's reasons for proposing this road, which appears to increase the amount of temporary surface disturbance within the WTP Project Area. | Rationale for proposing these new access routes can be found in Section 2.4.2.2. As a point of clarification, under the Agency Preferred Alternative, BBC and other operators would either construct a new route or improve the existing routes. Only under the Proposed Action is the existing route used as a downhill route, and the new route used as an uphill route. A conceptual location of the new access route to Flat Iron Mesa was identified by BBC engineers in their preliminary engineering road report contained in Appendix F and included within the Proposed Action. |
| 105       | Alternatives    | BLM does not clearly identify the party who would construct and pay for the new road to Flat Iron Mesa.  | See response to comment #102.  |
| 106       | Alternatives    | PCR requests that the FEIS include provisions allowing PCR to use the existing Cottonwood Canyon Road and dugway to Flat Iron Mesa for its exploratory activities. PCR's use of the existing road for exploratory development will not generate enough traffic to necessitate rerouting the existing road. In addition, PCR has an existing ROW that the BLM may not terminate   | See response to comment #101.  |

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| 107       | Mitigation Plan      | The DEIS does not identify specific locations where wildlife mitigation will occur.  | <p>As stated in both the BBC and Agency Wildlife Mitigation Plans, wildlife populations, management objectives, and factors affecting them are very dynamic. It is therefore impractical to identify specific mitigation efforts, in advance, for the life of the project, and far better to allow for an adaptive management approach for mitigation.</p> <p>However, in both plans the operators would be required to complete 30 percent of the total proposed EIS disturbance within the first few years of the project. As part of that 30 percent, BBC has identified specific locations for road realignments, and locations for habitat and improvement connectivity projects (see Figure 2.2.-1). In addition, they have agreed to non-use of the Stone Cabin Grazing Allotment (see Figure 3.7-1).</p> |
| 108       | Mitigation Plan      | PCR encourages BLM to specifically provide in the FEIS that whenever possible mitigation activities should occur on lands that will not be leased for oil and gas development. It is illogical for the BLM to approve mitigation on lands where surface-disturbing activities associated with oil and gas development may later take place, because it will negate the mitigation that has already occurred.             | Off-site mitigation would be located to provide the optimal benefits to wildlife while considering a number of other factors. A statement has been added to the Agency Wildlife Mitigation Plan that recognizes the need to consider potential natural gas development (as well as multiple other factors) within areas being considered for mitigation.   |
| 109       | Mitigation Plan      | If the project does not encompass enough unleased lands to meet the operators' needs for mitigation, PCR encourages the BLM to require that mitigation on Federal lands occur on lands covered by an operator's own oil and gas leases. The BLM should not approve mitigation activities on leases of other operators without their prior consent.   | <p>The operator's consent would not be required; however, BLM would take into consideration a variety of factors including the impacts of mitigation proposals on other leaseholders within the WTP Project Area.</p> <p>See response to comment #108.</p>   |
| 110       | Mitigation Plan      | The BLM should avoid approving mitigating activities on lands leased by one operator to offset the surface disturbances of another operator. PCR is concerned that the BLM will be reluctant to approve APDs on lands where mitigation has already occurred. In such a circumstance, the operator, whose leased lands have been mitigated, will be disadvantaged without having the benefit of developing the leasehold. | <p>See responses to comments #108 and #109.</p> <p>Mitigation activities would not preclude operators from developing their valid and existing leases (also see response to comment #99).</p>  |
| 111       | Special Designations | All alternatives improperly infringe on the Green River through Desolation Canyon and the Jack Canyon WSA.   | See response to comment #1289.   |
| 112       | Water                | The proposal includes three-15 acre surface water disposal sites and the EIS is mute on liquid and solid waste disposal pits.  | Disposal of hazardous materials and solids wastes is discussed in Section 2.1.8 of the EIS. As described in Section 2.1.2 of the EIS, the only pits for disposal of liquid and solid wastes other than the evaporation ponds would be reserve pits located at the individual drilling locations. These pits would contain drilling fluids and cuttings only, and would be lined. No hazardous substances would be placed in the reserve pits. All solid wastes and refuse would be removed from the WTP Project Area and disposed of at approved landfills. At the conclusion of drilling activities, the reserve pits would be reclaimed as described in Section 2.1.4 of the EIS.  |

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| Comment # | Topic/ Resource               | Public Comment  | BLM Response  |
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| 113       | Alternatives                  | The No Action Alternative includes actions. The BLM must rewrite the EIS to include a true No Action Alternative and discuss its implications.  | See response to comment #1539.  |
| 114       | NEPA                          | Given the scope of the proposal, amending the current MFP is wholly inappropriate. The Proposed Action is so significant that at a minimum, it requires review and revisions of the Price River MFP and the proposed RMP.   | See response to comment #52.  |
| 115       | Land Use/<br>Socioeconomics   | In order to accommodate Customs and Cultures of the West, the EIS needs to study and quantify the long- and short-term economic impact on activities like grazing, hunting, horseback riding, and other historic uses of the land.  | Impacts to specific economic sectors, such as grazing, hunting, and cultural and heritage tourism, are discussed in Section 4.13.2.2.   |
| 116       | Socioeconomics                | The EIS proposals do not address the restrictive, economic and social effects on river rafting, hunting, grazing, hiking, horseback riding, off-road vehicle use, and other historic activities or uses on or adjacent to the proposed lease sites.   | See response to comment #119.   |
| 117       | Recreation/<br>Socioeconomics | Despite the large number of people who take river trips down Desolation and Gray Canyons, the proposed EIS fails to adequately address the effects of the BLM alternatives on those who use the Green River corridor or earn a living from it.  | See response to comment #119.   |
| 118       | Socioeconomics                | There have been no significant economic studies of the impacts, both long- and short-term, of river running in Desolation and Gray Canyons. Prior to making a decision that favors one economic sector over another, the BLM must conduct an in-depth study of the socioeconomic impact of multiple industries on communities and scientifically determine how the proposal(s) will affect nearby communities AND commercial operations that require wilderness and solitude as a part of their livelihood and enjoyment of the area. | Baseline information on the economic contribution by sectors is presented in Section 3.13.5 of the EIS. Impacts to these sectors are discussed under each alternative discussion within Section 4.13 of the EIS.<br><br>See response to comment #119. |

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| 119       | Socioeconomics       | Developments like those proposed by the BLM have the effect of seriously damaging outfitters' ability to attract customers because the major selling points of a trip through the Desolation and Gray Canyons are their remoteness, unimpaired beauty, and wilderness characteristics. It is likely that the Proposed Action may put some outfitters out of business.   | <p>As discussed in Section 4.17 of the EIS, there would be no development within the Green River WSR corridor or the Desolation Canyon NHL. While under some alternatives (A, C, and E), a limited amount of development could be within sight and sound of the Green River, provided for in the range of alternatives (C and E) are mitigation measures that would substantially reduce or eliminate these impacts (see Table 2.6-8). Based on this information, river recreation is not expected to decline measurably under the Agency Preferred Alternative (Alternative E).</p> <p>Nonetheless, based on the sensitivity of the Desolation Canyon corridor, the following information has been added to the EIS in Sections 4.11 and 4.13.</p> <p>In general, recreationists select Desolation Canyon for river trips because it offers a wilderness experience. Based on public perceptions of oil and gas development that could occur on the WTP in areas adjacent to Desolation Canyon, there is potential that some river recreationists would be discouraged from floating the Green River through Desolation Canyon, especially those seeking remoteness and a primitive and unconfined recreational experience.</p> <p>As stated in Section 4.13.2.2 of the EIS, based on the number of permit applicants "quantifying and estimating the total decrease in boaters would be too speculative."</p> <p>However, reductions in river recreation could represent a loss of revenue to commercial outfitters and a loss of revenue for local businesses that serve visitors.</p> <p>There would also be a potential loss of economic value to visitors discouraged from visiting Desolation Canyon, and potentially to all users of the river if the wilderness experience is diminished.</p> |
| 120       | Special Designations | While a statutory mineral leaseholder may have rights to an area, those rights do not denigrate surface designations such as WSAs. The argument that leases for mineral and other rights were issued prior to FLPMA is a bogus attempt to circumvent the WSA designation. It betrays the public's trust of the BLM and the Federal Government. A WSA must be managed as a mandated Wilderness Area until such time a decision is made regarding its status. | See response to comment #301.  |
| 121       | Special Designations | The DOI is under no obligation to accommodate proposed leaseholders in access to leases within WSAs.  | FLPMA, IMP H-8550-1 Interim Management Policy for Lands Under Wilderness Review, several Federal courts, and the Interior Board of Land Appeals have held that while BLM may manage lands to prevent undue degradation to WSAs and designated wilderness, it may not do so if those lands are subject to grandfathered uses and valid existing rights (e.g., pre-1976 existing mineral leases). Also see response to comment #301.   |
| 122       | Special Designations | The DOI is under no obligation to provide access to SITLA lands owned and managed by the State of Utah.   | Court precedent ( <i>Utah v. Andrus</i> , October 1979) holds that operators have a right of access to State school trust lands. That right is subject to Federal regulation when its exercise requires the crossing of Federal property. Such regulation cannot, however, prohibit access or be so restrictive as to make economic development competitively unprofitable.  |

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| Comment # | Topic/ Resource                  | Public Comment   | BLM Response  |
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| 123       | Special Designations             | The proposed developments will affect the nature of the Green River visually, in sound, and nature of the experience, and is inconsistent with WSR legislation.  | The Green River WSR corridor extends ¼-mile on either side from the high water mark. Development is not proposed within the WSR corridor under any of the alternatives. Therefore the Proposed Action and alternatives are consistent with the WSR Act and BLM Manual 8351 (WSRs Policy and Program Direction for Identification, Evaluation, and Management). Visual and auditory impacts to the Green River are discussed in multiple resource sections including Sections 4.11 (Recreation) and 4.17 (Special Designations).   |
| 124       | NEPA                             | Mineral management is only one of the principal uses of public lands. The BLM (purpose and need) totally overlooks its obligation to provide support for grazing, recreation, and designated (WSA) areas, and is therefore deficient.  | Section 1.2 of the EIS clearly states the BLM's statutory obligations under FLPMA, which include the management of public lands on the basis of multiple use. See also response to comment #217.  |
| 125       | Special Designations             | The BLM Wilderness Characteristics Review is suspect under the current political/economic conditions. A complete review of that document by an interagency and diverse interest group committee is required.   | A review of BLM's wilderness characteristic inventories was completed as part of the land use planning process. Information from the 2007 re-inventories has been incorporated into the EIS.  |
| 126       | Socioeconomics                   | The BLM plan does not adequately address the role of wilderness, natural areas, and the economies they produce to communities over the long-term.  | Baseline studies on the recreational and passive use value of wilderness are presented in Section 3.13.5.2 of the EIS. Using this baseline data, the potential passive use value foregone from development within the areas with wilderness characteristics (WSAs and WIAs) under the Proposed Action is estimated in Section 4.13.2.2. The economic impacts of development within WSAs and WIAs under other alternatives are also analyzed in detail. The value foregone from wilderness recreation is discussed qualitatively, as there is no visitor use information from which decreases in use can be calculated.  |
| 127       | Recreation/ Special Designations | The proposed development lacks mitigation for polluting the night sky.   | Table 2.6-8 includes a provision that lighting at all drilling locations and facilities would be down shielded/directed to areas of human activity. This mitigation measure would apply to development under Alternatives C, D, and E.  |
| 128       | Recreation/ Special Designations | The EIS states that there are three sites on Peter's Point that will be illuminated for two weeks during the river outfitter peak operating season. The BLM statement regarding visible and ambient lights is not realistic and it is not the result of scientific study, production of a light model, and ground truthing of the results. | The DEIS states in Section 4.16.1.4, as well as other sections, that three of the proposed well pad locations along Cedar Ridge could be visible from the Green River and Desolation Canyon. However, as noted in Table 2.6-8, under Alternatives C, D and E, no development would be located within the viewshed of the Green River, unless to do so would preclude the development of valid and existing lease rights. If development were to occur within the viewshed, drilling and completion would only be permitted outside of the high-use river recreation season (May 15th to August 15th). In addition, under all alternatives, permanent facilities would be painted to blend with the natural landscape. |
| 129       | Recreation/ Special Designations | The EIS is silent on the effect of vehicle lights at night.  | Statements have been added to Sections 4.16.1.1 and 4.16.1.2 to include the effect of vehicle lights at night.  |
| 130       | Recreation/ Special Designations | Prior to leasing any sites, the BLM must conduct ambient and visual light studies, and conduct a ground-truthed model. The BLM must then establish standards and substantial fines for violations.   | As discussed in Section 1.4, while this EIS provides analysis of development on unleased lands within the WTP Project Area, the ROD for this EIS will not include a decision to lease any specific parcel within the WTP Project Area. Through the BLM's competitive leasing process, rather, the BLM may utilize the analysis in this EIS to evaluate nominated parcels and then make leasing decisions in separate decision documents.<br><br>In addition, the BLM's Visual Resource Management guidelines do not require ambient and visual light studies, nor do they require that the BLM establish standards and fines for ambient and visual light.  |

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| Comment # | Topic/ Resource                         | Public Comment   | BLM Response  |
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| 131       | Recreation/ Special Designations/ Noise | The result of "hospital grade" mufflers proposed by BLM is suspect and no data is provided to support their effectiveness.   | Additional information on the effectiveness of various noise mufflers has been added to Sections 3.18 and 4.18. In general, mufflers would reduce noise from individual sources by approximately 10 dBA.  |
| 132       | Recreation/ Special Designations/ Noise | There is no data to determine the effect of wind, geology, aspect, and other factors on the sound generated from the proposed and alternative actions, and how those sounds travel from each of the drill sites, access roads, and infrastructure. | The effects of noise propagation in canyon topography have been addressed in Section 4.18 of the EIS. The EIS also recognizes the other variables, such as wind, could affect noise propagation.  |
| 133       | Recreation/ Special Designations/ Noise | There are no controls on the sound generated by motors of rigs, pipeline construction, vehicles and other sources of noise that the Proposed Action will bring.  | <p>Under the Proposed Action and all alternatives compressors would include hospital grade mufflers, and would be enclosed in buildings or portable structures in an effort to abate noise (see Section 2.1.5.2). All alternatives include similar mitigation measures for pump stations (See Section 2.1.5.3).</p> <p>It should be noted that under all BLM alternatives, noise mufflers would be required on the motors of drill rigs located within 2 miles of the Green River (see Section 2.6-8).</p> <p>In addition, noise from drill rigs would be mitigated by directing the exhaust away from sensitive areas. Drilling noise would be short-term at any one location.</p> <p>Vehicle noise in the WTP Project Area would be controlled by mufflers as vehicle noise is controlled everywhere else. Construction noise is generally unavoidable, but is very short-term in nature.</p> |
| 134       | Recreation/ Special Designations/ Noise | Does the BLM have noise baseline studies for the Proposed Actions and alternatives? If not, the BLM must conduct studies to establish baseline data and establish standards and fines.   | <p>See response to comment #313.</p> <p>The EPA, State of Utah, and Carbon County (not the BLM) would be responsible for establishing noise regulations and enforcing compliance with those regulations. The BLM would be responsible for ensuring that noise mufflers are installed on compressors and pump stations.</p>  |
| 135       | Visual Resources                        | The BLM has not shown a model of visual lines of sight.  | A seen/unseen areas analysis was conducted as part of the visual resource impact analysis as discussed in Section 4.16 and Appendix L (Visual Resources Technical Support Document). The areas visible from key observation points and key travel corridors within the WTP Project Area are shown on Figures 3.16-2 - 3.16-11.  |
| 136       | Land Use/ Recreation                    | Studies must be conducted that determine the effect of the Proposed Action on consumptive activities like hunting and grazing, and non-consumptive use like wildlife watching.   | Impacts to hunting and wildlife watching are discussed in Section 4.11. Impacts to grazing are discussed in Section 4.7. The economic impacts, which could result from changes in these activities, are discussed in Section 4.13.  |
| 137       | General                                 | The EIS must indicate where additional fences will be required. Will firewood cutting be allowed? Will rock picking be permitted?  | The need for additional fencing would be determined as part of the APD process. As a part of routine construction activities there will be some tree removal. Forest management and rock collection would be consistent with what is outlined in BLM land use plans and regulations.  |

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| 138       | NEPA   | Though SITLA lands are within the lease areas, that in no way obligates the Federal government to abrogate the rights of Federal Supremacy in regards to access or any other management activity. Federal Supremacy also applies to the affected counties and such master plans or contrivances they might develop. | See response to comment #122.   |
| 139       | Alternatives/ Recreation/ Special Designations | All of the alternatives are in opposition to the Desolation and Gray Canyons of the Green River Management Plan. To be a credible document compatibility must be addressed.   | Under Alternatives B and D, no development would occur within sight or sound of the Green River. Under Alternatives A, C, and E, some development could occur within sight and sound of the Green River, but it should be noted that all development would be on pre-FLPMA leases within the WSAs that pre-date the establishment of the 1979 river management plan. Under Alternatives C and E, the BLM has included several mitigation measures specifically designed to reduce visual and auditory impacts in an attempt to make development compatible with the river management plan, while still recognizing the operators' valid and existing lease rights.  |
| 140       | Water  | There is no adequate warning system in place to advise people on the river that an incident involving leaks or spills has occurred.   | <p>The alternatives identify or include numerous requirements, BMPs, environmental protection measures, and mitigation measures that are specifically designed to avoid, minimize or mitigate potential leaks, spills, and runoff. For example, the operators would be required to comply with all Federal SPCC requirements. Additional measures are identified in Tables 2.2-6, 2.6-7, and 2.6-8. Potential direct, indirect, and cumulative impacts to surface water resources are carefully evaluated in Sections 4.5 and 5.5.</p> <p>Furthermore, no warning system is needed or required by regulation. Any potential leaks or spills of petroleum or other chemicals related to the project would occur many miles from the Green River. Significant dilution would occur along any potential flow paths to the Green River. Therefore, there is no potential hazard to river users from potential spills.</p> |
| 141       | Geology/ Water                                 | The section of the EIS describing drilling in close proximity to canyon rims is inadequate, and requires a thorough re-write that includes the related characteristics of specific formations (fractures, aquifers, etc.) that might be locally exposed to drilling failure.  | The geology and water resources sections within Chapter 3 of the DEIS describe the characteristics of the Green River Formation in the WTP Project Area. The nature of this formation does not change simply because of proximity to canyon rims. Bedrock aquifers within the WTP Project Area are located below the Mahogany Zone, several thousand feet below the ground surface at the canyon rims. The Proposed Action and alternatives contain measures for protection of bedrock aquifers (i.e., casing and cementing requirements).  |
| 142       | Water  | The sites that require closed-loop drilling must be identified prior to the approval of the action proposed in the EIS.   | Under Alternatives C and E, closed-loop drilling would be employed in sensitive areas such as locations proposed within or near floodplains or drainages, near cultural resource or archaeological sites, and in the WSAs. The decision to require closed-loop drilling would be made by the BLM during the APD review process. Many of the proposed drilling sites have been located only conceptually, and may be moved during the APD process to avoid or mitigate identified environmental impacts. Therefore, identification of specific sites that require closed-loop drilling is premature.   |
| 143       | Air Quality                                    | The lessees should be required to provide and maintain air quality monitoring systems.  | The State of Utah has the authority to regulate air quality matters for the majority of the WTP Project Area. These responsibilities include for example, establishing air pollutant background levels, and monitoring air quality.   |
| 144       | Air Quality                                    | Given the seriousness of global warming, the EIS should address this issue.   | The BLM has included additional analysis of greenhouse gases in Sections 4.3 and 5.3 of the EIS.  |
| 145       | Air Quality                                    | Those who plan on developing leases should be required to submit a plan to reduce their impact on global warming by a minimum of 50 percent.  | See responses to comments #144 and #345.  |

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| 146       | Air Quality              | BLM should require all lessees to attend training and evaluate a company's performance on their global impact and reduction of carbon imprint.  | See response to comments #3 and #854.   |
| 147       | Water Resources          | Any leakage or spill from the Jack Creek sites would flow into the Green River from Jack Creek in a very short time. The EIS should contain a plan or response to mitigate this problem which describes how they and the lessee would react to such an event. | The alternatives identify or include numerous requirements, BMPs, environmental protection measures, and mitigation measures that are specifically designed to avoid, minimize or mitigate potential leaks, spills, and runoff. For example, BBC would be required to comply with all Federal SPCC requirements. Additional measures are identified in Tables 2.2-6, 2.6-7, and 2.6-8. Potential direct, indirect, and cumulative impacts to surface water resources are carefully evaluated in Sections 4.5 and 5.5.   |
| 148       | Wildlife                 | The BLM needs to identify a full range of indicator species and determine a trend analysis for those baseline species.  | The comment does not provide sufficient information for the BLM to understand what is meant by "indicator" species, which can have a variety of definitions. However, Chapter 3.0 of the EIS describes the affected environment of the WTP Project Area. The description of "Affected Environment" under 40 CFR 1502.15 states that the "environmental impact statement shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The descriptions shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues. Verbose descriptions of the affected environment are themselves no measure of the adequacy of an environmental impact statement." Resources and resource uses described in Chapter 3.0 satisfy this CEQ requirement and include resources that are known to occur in the WTP Project Area, as well as the substantive issues of concern brought forward during internal and public scoping. Affected environment information within Chapter 3.0 is intended to set up a baseline for comparison of the direct, indirect, and cumulative impacts of each of the alternatives. The commenter is specifically referred to Sections 3.8, 3.9, and 3.10 of the EIS. These sections of the EIS include detailed, comprehensive, and where available, quantitative and/or trend information on the vegetation and wildlife species (including special status species) known to occur or with the potential to occur in the WTP Project Area. |
| 149       | Wildlife Mitigation Plan | The mitigation plan should consider reintroduction of other native species that are now absent from the area.   | Because the comment does not refer to any particular species, BLM cannot respond specifically. However, use of native species is an integral component of the BLM's standard operating procedures and requirements for reclamation activities. A proposal to re-introduce native species no longer found in the WTP Project Area would not necessarily mitigate impacts of the oil and gas project.   |
| 150       | Wildlife Mitigation Plan | The mitigation plan should include habitat rehabilitation to improve sage-grouse breeding grounds, in addition to winter habitat.   | The BBC Wildlife Mitigation Plan for Alternative A is a voluntary component of the operators' Proposed Action and cannot be modified by the BLM. However, the Agency Wildlife Mitigation Plan, environmental protection measures in Table 2.6-8, and special protective measures for sage-grouse under Alternatives C and E include measures to protect and/or mitigate impacts to sage-grouse winter range and breeding grounds (i.e., leks).  |
| 151       | Wildlife Mitigation Plan | How is the determination made to remove individual trees (pinyon-juniper forest) that might be used by other endangered species?  | The BLM has identified preliminary locations for pinyon-juniper removal. Prior to conducting habitat treatments, the determination to remove individual trees would be made on a site-specific basis by the appropriate surface management agency. If determined necessary (during the onsite process), surveys would be completed prior to realigning roads.   |



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| 152       | Vegetation      | Prior to any new road construction, a weed control plan must be in place.  | Weed control is an important component of the Proposed Action and BLM alternatives (C, D, and E) within the EIS. As indicated in Table 1.6-1, the operators would be required to comply with the Noxious Weed Act. As proposed by the operators in Table 2.2-6, “the operators would be responsible for necessary preventative and corrective road maintenance for the duration of the project. Maintenance responsibilities may include, but are not limited to, blading, gravel surfacing, cleaning ditches and drainage facilities, dust abatement, noxious weed control, or other measures as deemed appropriate.” Furthermore, as indicated in Table 2.6-8, under Alternatives C, D, and E, “an Approved Pesticide Use and Weed Control Plan would be prepared and implemented in consultation with the Authorized Officer of the appropriate surface management agency. Weed monitoring would be continued on an annual basis (or as frequently as the surface management agency determines) throughout the LOP. The Pesticide Use and Weed Control Plan would include prescribed application methods that account for the reclamation objective of re-establishing indigenous forbs, shrubs, and trees, in addition to grasses.”   |
| 153       | Vegetation      | Implementation of the Proposed Action or alternatives could take away use of the most important management tool in piñon-juniper and sagebrush ecosystems: fire. The EIS should reflect any changes or modifications to the use of prescribed or natural fire management policy.   | Section 3.15.5 includes the following information on BLM's policy for natural fire management within the WTP Project: “The WTP Project Area is within the Bruin Point Fire Management Unit (FMU). The current policy is to contain all unplanned fires of 100 acres or less, approximately 90 percent of the time, under all burning conditions. In Nine Mile Canyon, wildfires are fought aggressively (BLM 2004b).” Section 4.8 of the EIS acknowledges that the potential for wildfires could increase within the WTP Project Area due to increased human activity and use of machinery for construction, drilling, and completion activities. This section of the EIS has been modified to also state that newly constructed roads that fragment the WTP Project Area would serve as fuel breaks that make suppression of fires more manageable. The alternatives do not propose, nor would they result in, any change to the BLM's policy for wildfire management. Furthermore, if it is determined that an area needs fuels reduction treatment due to the build-up of hazardous fuels, natural gas development would not inhibit the BLM's ability to implement prescribed fire, mechanical, and/or chemical treatments. The oil and gas infrastructure within the WTP Project Area would be considered in the design of the fuels reduction projects to ensure they are not damaged; however, the presence of oil and gas infrastructure would not exempt or limit the area from needed fuels reduction treatments. |
| 154       | Dust Study      | The dust study is incomplete. In addition, baseline studies need to be completed over a long-term, multi-year period. When the baseline data has been compiled, scientific estimates must be made of the short-term and cumulative effects of dust on archeological and other features, and its effect on the recreational experience. | See response to comment #53.<br><br>Impacts of increased dust on the recreational experience are discussed in Sections 4.11 and 4.12.   |
| 155       | Cultural        | The EIS does not indicate how the site workers will be monitored to prevent them from harming sites, artifacts, or other historical materials.   | See response to comment #847.   |
| 156       | Alternatives    | In order to adequately address the effects of the EIS on Nine Mile Canyon, the BLM needs to study and include access routes other than the Nine Mile Canyon route.   | See response to comment #34.  |

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| 157       | General                                 | Workforce requirements should require that all (each) crew be supervised by a college graduate. In addition, all employees of any company working at the sites should be required to attend a 20-hour course to sensitize them to land ethics issues.                                       | See response to comment #854. Personnel training would be required under the WTP PA.   |
| 158       | Alternatives                            | The EIS must address the recovery of land in more depth and include scientific studies that provide baseline data prior to any lease or activity (final reclamation and abandonment).   | This comment lacks the specific information necessary to provide a detailed response.  |
| 159       | Alternatives                            | It would be prudent for the BLM to perform a detailed evaluation of alternative access routes rather than relying on existing dirt roads in Nine Mile Canyon and its narrow side canyons.   | See response to comment #34.   |
| 160       | Alternatives / Special Designations     | BLM must fully consider and analyze an alternative that designates the Desolation and Jack Canyon WIAs as "WSAs." BLM has the authority under FLPMA 202 (43 U.S.C. 1712) to establish new WSAs.   | As established in <i>State of Utah vs. Gale Norton</i> , the authority of the BLM to establish new WSAs expired no later than October 21, 1993, with submission of the wilderness suitability recommendations to Congress pursuant to Section 603 of FLPMA. The 1999 Utah Wilderness Inventory, which included the Jack and Desolation Canyon WIAs, cannot be used to create additional WSAs or manage lands as if they are or may become WSAs. Also see response to comment #299.                                 |
| 161       | Alternatives                            | The BLM must fully consider and analyze the purchase or exchange of existing leases inside WSAs and lands with wilderness characteristics.  | See response to comment #217.  |
| 162       | Alternatives                            | BLM should not recommend any new leasing in areas with wilderness characteristics.  | See responses to comments #52 and #299.  |
| 163       | Dust Study                              | BLM should prepare a supplemental to the DEIS to fully consider, analyze, and disclose the final dust study. A separate comment period must be provided from the supplemental study.  | See responses to comments #53 and #1316.   |
| 164       | Recreation/ Special Designations/ Noise | BLM must fully consider, analyze, and disclose, the noise impacts caused by project activities. As currently written, the DEIS does not take the required "hard look" at noise impacts to natural quiet in Desolation Canyon, an NHL.   | The DEIS recognizes that development in Jack Canyon and on Cedar Ridge could be within the sound of the river. Included in Alternatives C, D, and E (see Table 2.6-8) are mitigation measures that would reduce noise impacts.<br><br>For the FEIS, background noise levels within WSAs and non-WSA lands with wilderness characteristics have been modified based on input provided during the DEIS comment period, and noise modeling has been conducted. Potential noise impacts are presented in Section 4.18. |
| 165       | Recreation/ Special Designations/ Noise | The DEIS does not take a hard look at the effects of project-related noise to cultural resources. The noise associated with the proposed natural gas development will directly and indirectly adversely affect our ability to appreciate cultural resources and the Desolation Canyon Area. | See response to comment #1378.   |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response   |
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| 166       | Cultural             | BLM has failed to "seek" out consulting parties as required by Section 106 of the NHPA. BLM's decision to deny groups must be revisited and reversed.  | See response to comment #8.  |
| 167       | Alternatives         | The BLM should adopt the No Action Alternative. Such a decision is consistent with existing lease rights because it allows BBC and other lessees to propose smaller projects that are more narrowly tailored to existing lease holds.  | BLM's decision and rationale for the decision will be presented in the ROD that will follow the FEIS.  |
| 168       | Special Designations | The BLM should follow its own guidelines as outlined in BLM Manual 8351, which requires the BLM to manage all eligible, suitable, or designated rivers to maintain or even enhance the outstandingly remarkable values.  | See response to comment #169.  |
| 169       | Special Designations | The DEIS acknowledges that the Proposed Action would degrade the indentified outstandingly remarkable values of Nine Mile Creek to such a degree that the impacts would be irreversible and irretrievable. Therefore, the DEIS clearly demonstrates to the Price Field Office that it cannot approve the Proposed Action or alternatives due to the fact that it would violate the BLM's required management direction for Nine Mile Creek.  | <p>Within the Approved RMP the BLM did not find Nine Mile Creek to be suitable for WSR designation. As discussed on page 49 of the Approved RMP, "eligible segments that were not carried forward as suitable in the Approved RMP are protected by various other management decisions."</p> <p>Nonetheless, alternatives C, D, and E contain numerous mitigation measures (see Table 2.6-8) that would reduce impacts to the ORVs for which Nine Mile Creek was found to be eligible during the land use planning process.</p> |
| 170       | Special Designations | The DEIS states that indirect impacts are not expected; however, there are a myriad of indirect impacts that will impact the Green River and/or Nine Mile Creek. For example, several of the proposed developments indentified in the DEIS are located in the Jack Creek Watershed. These projects may cause some erosion or sediment to gather into Jack Creek, which is a major tributary of the Green River. This would degrade the water quality of Jack Creek, which would then degrade the water quality of the Green River, negatively impacting the identified outstandingly remarkable fish value of the Green River. | Section 4.17.1.4 has been expanded to include a more thorough discussion of potential indirect impacts on eligible WSRs.   |

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| 171       | Alternatives             | In order to develop this area responsibly, a phased approach is necessary. Alternative E does not offer a phased approach to development and does not provide assurances for the future functionality or migration corridors, or crucial habitats for big game and sage-grouse.  | Phased development is considered within the range of alternatives presented in the EIS.<br><br>In addition, the Special Protection Measures of Wildlife discussed in Section 2.6.1.4 provide the BLM with the flexibility necessary to concentrate the locations of winter drilling activity to limited or confined areas.  |
| 172       | Alternatives             | Alternative D does a better job of phasing development than other alternatives being considered; however, it is still inadequate in that it focuses on how fast development can occur instead of focusing on development in a way that maintains the function of important migration zones.  | See response to comment #171.   |
| 173       | Alternatives             | A new phased development approach should be developed and used in the preferred alternative. The project area should be divided into smaller parcels. The parcels should be developed fully and restored one at a time before subsequent parcels are developed. Therefore, wildlife displaced from the developed parcel can migrate to equal-value habitat on adjacent lands. When the wildlife habitat on the developed parcel is restored, displaced wildlife can return, and the next parcel can be made available for development. In this way smaller parcels are developed and restored over a long period of time, as oppose to the current mode of field development that is too fast. | The phased development approach suggested would be difficult to implement because leases within the WTP Project Area are held by numerous operators. Precluding development in some areas could prevent operators from developing their lease rights in a timely manner. However, within the range of alternatives is a phased approach that would control the rate of development, and special protection measures that would provide the BLM with the flexibility necessary to control the location of winter development (see response to comment #171). It should also be noted that under Alternatives C, D, and E, there would be annual and maximum allowable disturbance thresholds that are intended to ensure that developed areas would be restored in a short-period of time. |
| 174       | Alternatives             | The Agency Preferred Alternative should require that industry abide to winter seasonal closure stipulations in crucial winter ranges and migration corridors, conduct phased development with adaptive management, and conduct compensatory mitigation for their impacts.  | Adherence with winter closure stipulations is fully considered within the range of alternatives being considered in the EIS (Alternative D). Phased development with adaptive management is considered in Alternatives (C, D, and E). Compensatory mitigation is considered within the wildlife mitigation plans that have been incorporated into the Proposed Action, Alternative C, and Alternative E.  |
| 175       | Wildlife Mitigation Plan | If the mitigation plan intends to "offset the effects of full field development in its entirety," then the cumulative impacts of development on wildlife should be taken into account. Impacts to wildlife extend far beyond the road beds and well pads from development.   | Cumulative impacts to wildlife are discussed in Sections 5.9 and 5.10 of this EIS. The cumulative impact discussion acknowledges that potential cumulative impacts to wildlife extend beyond the disturbance footprint (e.g., the areas disturbed by construction of road beds and well pads). Within the direct and indirect impact analysis (Sections 4.9 and 4.10) the BLM has included a habitat fragmentation analysis, which also considers impacts that extend beyond the area of direct disturbance.  |

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| 176       | Wildlife Mitigation Plan | While off-site mitigation is important and encouraged, the DEIS fails to consider on-site mitigation.  | Neither BBC's Wildlife Mitigation Plan, nor the Agency Wildlife Mitigation Plan, is limited to off-site mitigation projects. Within the range of alternatives considered in the EIS, as discussed in Table 2.6-8, the BLM is considering a number of on-site mitigation measures including, but not limited to, netting of reserve pits, seasonal restrictions on surface-disturbing activities in specific wildlife habitats, and instillation of noise mufflers for some production equipment. See response to comment #107.   |
| 177       | Wildlife Mitigation Plan | Adaptive management should consider making changes to the field development based on monitoring information on impacts to greater sage-grouse, mule deer, elk, and other wildlife. Wildlife monitoring should have guaranteed funding in-place prior to development. | See responses to comments #107, #180, #254, and #269, all of which illustrate the adaptive nature of the mitigation measures outlined in Alternatives C, D, and E, the Agency Wildlife Mitigation Plan (Appendix E), and the Mitigation Compliance and Monitoring Plan (Appendix D).   |
| 178       | Wildlife Mitigation Plan | The agency wildlife mitigation plan does not mention anything about grazing allotment rest being a valuable mitigation resource for wildlife habitat enhancement.  | The BLM considers allotment rest a BMP and/or standard operating procedure for grazing management, and not a form of mitigation. Furthermore, the temporary nonuse of grazing allotments committed to by the operator was not included in the Agency Wildlife Mitigation Plan because rest use was committed to for past projects.   |
| 179       | Wildlife                 | The WTP DEIS greatly underestimates the fragmentation effect on deer and elk.  | The fragmentation analyses included in the EIS are based on the best available scientific information and provide a conservative estimate (rather than underestimate) of potential habitat fragmentation that could occur as a result of project implementation. Appendix I outlines the assumptions used to model habitat fragmentation. The species-specific spatial buffers placed around existing and proposed development within the WTP Project Area, in order to determine the extent of existing and potential habitat fragmentation, were based on protocol and suggestions developed by the Wyoming Game and Fish Department in their 2007 publication entitled "Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats." |

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| 180       | Wildlife        | BLM fails to show how it will work to maintain wildlife objectives set by the UDWR within this unit.  | <p>The EIS specifies how the BLM would work with the UDWR to maintain wildlife objectives set by the UDWR. For example, under Alternatives C and E (see Sections 2.4.1.2 and 2.6.1.4), the BLM and its cooperating agencies would conduct an annual review to evaluate operator compliance with conditions of waivers or exceptions, resource conditions, and effectiveness of mitigation measures, particularly those addressing wildlife. As part of the review of resource conditions, the following information would be considered:</p> <ul style="list-style-type: none"> <li>Annual survey results would be submitted on mule deer herd populations while their numbers are below objectives; when population objectives are exceeded, population survey results would be submitted every three years. Annual surveys would supplement those conducted by UDWR as necessary.</li> <li>Survey results on elk populations would be submitted every three years while populations exceed their objective numbers; when population numbers are below their objective, surveys would be submitted annually. Annual surveys would supplement those conducted by UDWR as necessary.</li> </ul> <p>In addition, as part of the Agency Wildlife Mitigation Plan, the WTPMOC (an oversight committee to be led by the BLM, in coordination with UDWR, and other agencies) would be established. The WTPMOC would evaluate the implementation and effectiveness of mitigation measures, provide direction on effective means of mitigating planned development activities, and develop adaptive strategies and projects to mitigate beyond initial commitments outlined in Appendix E. The WTPMOC would complete evaluations and make recommendations to the Authorized Officer on on-going and planned mitigation activities on an annual basis, in advance of considerations for winter activities, and prepare a report on its findings. As stated in Appendix E, the Agency Wildlife Mitigation Plan gives priority to compensating for potential effects to greater sage-grouse, deer, raptors, and elk. Thus regular coordination with the UDWR under this plan would allow the BLM to work closely with the UDWR to evaluate the effectiveness of mitigation measures implemented, and to maintain population objectives for these species.</p> |
| 181       | Wildlife        | The FEIS should incorporate a specific conservation strategy on how to maintain current big game and upland game-bird population objectives in the WTP Project Area. The current mitigation plan aims to offset the impact to the planning area to offsite locations. | See response to comment #180, which responds to how the BLM would work with the UDWR to maintain big game objectives set by the UDWR. While the project could have direct and indirect effects on upland game bird habitats and possibly individual birds, the project is not expected to affect upland game bird populations (see upland game bird discussions in Section 4.9). Also see response to comment #176.  |
| 182       | Recreation      | A plan should be created to compensate Utah sportsmen for any loss of big game that might occur as a result of energy development in this area.   | The applicants are permitted users of public lands and have valid and existing rights, which allow them to explore and develop mineral resources on their leases. Compensation for potential impacts to another public land user is not required by current regulations or management guidelines which apply to Federal lands under BLM administration. The Proposed Action includes a voluntary Wildlife Mitigation Plan that would reduce impacts to big game that might occur as result of energy development in the WTP Project Area (Appendix B). The BLM has incorporated a similar Agency Wildlife Mitigation Plan within Alternatives C and E.   |

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| 183       | Alternatives/ Wildlife | NSO should be required within open sagebrush parklands in the WTP Project Area, and roads and well pads should be located outside the sagebrush park areas.   | <p>There are approximately 24,000 acres of sagebrush and sagebrush grassland communities within the WTP Project Area, some of which occur on non-Federal lands. In addition, given other spatial and temporal restrictions already in place (e.g., lease stipulations, design features of the alternatives, mitigation measures within the EIS), to prohibit surface disturbance within all sagebrush parklands on Federal land would inhibit the operators' ability to develop their valid and existing Federal lease rights. Therefore, an NSO requirement within all sagebrush parks is not a feasible measure. However, the BLM retains the ability to move any identified well location up to 200 meters during the onsite process. It is also important to note that Alternatives C and E include Special Protective Measures for sage-grouse (see Sections 2.4.1.2 and 2.6.1.4). These measures, which would result in substantial reductions in sagebrush disturbance, include (but are not limited to) the following commitments:</p> <ul style="list-style-type: none"> <li>Disturbance would be minimized in and around sage-grouse core winter use areas through strategic planning for optimal realignment of existing roads and placement of new roads, well pads, and other infrastructure, thereby reducing habitat fragmentation. Strategic planning would include cooperation with the UDWR to determine appropriate locations for road realignments and other surface activities so as to minimize impacts on sage-grouse.</li> </ul> |
| 184       | Wildlife               | Development within the sagebrush areas could result in behavioral changes of big game and sage-grouse, impacting the usefulness of these areas to wildlife at a much larger scale than just the surface disturbance of development.   | See response to comment #556. Alternative-specific sage-grouse analyses in Section 4.10 of the EIS provide information on potential habitat loss, population decline, behavioral, and physiological impacts of development to sage-grouse potentially resulting from: 1) direct habitat loss from well pad, road, and pipeline construction, 2) increased human activity, and 3) fragmentation.  |
| 185       | NEPA/ Land Use         | The BLM should detail in the EIS how development of the WTP Project Area will be managed for a balance of uses, as required by FLPMA.   | Public lands within the WTP Project Area are managed under federal land use plans, which were developed under FLPMA's multiple use mandate. Conformance with these land use plans is addressed in Sections 1.5.1 and 1.5.2 of the EIS.   |
| 186       | Alternatives/ Land Use | The Agency Preferred Alternative should retain sufficient management discretion for the BLM to permit development of the gas resources without improperly committing itself to wholesale conversion of the area from lands containing wildlife habitat, rangeland, watersheds, and energy resources, into a single-use industrial zone effectively committed to natural gas extraction to the exclusion of most other uses. | <p>As discussed in Section 1.2 (Purpose and Need), the BLM is considering the full field development proposal of natural gas in the WTP Project Area in accordance with FLPMA, which mandates the BLM to manage public lands on the basis of multiple use.</p> <p>The Agency Preferred Alternative contains many mitigation measures intended to protect wildlife habitat, rangelands, and watersheds (see Tables 2.6-7 and 2.6-8).</p> <p>If the BLM decides to approve the Proposed Action or alternatives, they would be responsible for reviewing surface use plans, which are an integral component for the APD and ROW application process. Through the APD and ROW process, the BLM may apply additional mitigation measures or COAs.</p>   |
| 187       | Cumulative Impacts     | The cumulative impacts and RFD is inadequate. There needs to be a realistic, public assessment of what the true number of wells ultimately developed in the WTP Project Area will be. If this document is a maximum development scenario, then it should be explicitly stated that no well infill will be permitted in supplementary EAs in years to come.  | The cumulative impacts analysis accounts for relevant past, present, and reasonably foreseeable future actions within the Price and Vernal Resource Planning Areas that could create cumulative impacts with the West Tavaputs proposal. While it is assumed that the Proposed Action is a maximum development scenario, there are many areas within the WTP Project Area where the oil and gas potential is unknown. If the geology is proven within these areas, additional oil and gas development could occur and would be appropriately assessed/analyzed in accordance with NEPA.  |

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| 188       | Cumulative Impacts          | The DEIS ignores cumulative effects of the other activities in the WTP Project Area that have a compounding effect on wildlife, particularly deer and sage-grouse. The two main items that are neglected are the Questar pipeline upgrade and the Petro-Canada leases.  | Chapter 5.0 of the EIS provides a detailed evaluation of potential cumulative impacts from relevant past, present, and reasonably foreseeable activities on wildlife, as well as other resources and resource values. While the summary of relevant past, present, and reasonably foreseeable activities may not specifically identify the Questar pipeline and proposed Petro-Canada activities, the potential disturbance from these projects is included in the reasonably foreseeable development scenario for cumulative impacts presented in Tables 5.1-2 and 5.1-7. Well counts and associated/estimated surface disturbance are analyzed in the resource-specific cumulative impact analyses in Chapter 5.0.   |
| 189       | Wildlife                    | Stipulations that restrict surface occupancy within 0.5 miles of a lek are insufficient to maintain populations within developed oil and gas fields. We recommend the BLM use 1.8 mile NSO around leks.   | As stated in Section 3.10.3.2, one active sage-grouse lek location has been identified within the southwestern portion of the WTP Project Area approximately 3.4 miles from the nearest proposed development. The BLM and the UDWR (a Cooperating Agency for this project) have determined that the special protective measures included under Alternatives C and E in the EIS (i.e., Development would be precluded within 2 miles of known leks between March 15 and July 15. In addition, regardless of season, development would be prohibited within ½ mile of known leks) are sufficient to protect this lek). These measures are in compliance with those outlined in the Approved RMP for the Price Field Office. Additional mitigation measures for sage grouse are included in Alternatives C and E, as well as within the Agency Wildlife Mitigation Plan (Appendix E). |
| 190       | Wildlife                    | Stipulations restricting seasonal surface use within 2 miles of an active lek during the breeding and nesting period are inadequate to maintain sage-grouse populations within developed habitat. We recommend utilizing a 4-mile buffer around leks to protect nesting and brood rearing habitat for a minimum of 70 percent of the nesting hens associated with a lek from March 1 - July 15. | See response to comment #189.  |
| 191       | Wildlife                    | While the wildlife mitigation plan proposes some good habitat restoration work, the EIS should focus more on on-site avoidance, adaptive management, and other ways to minimize impacts to existing sage-grouse strutting and nesting areas.  | The Agency Wildlife Mitigation Plan (Appendix E) focuses on mitigation designed to offset or compensate for some of the anticipated effects of the project on wildlife and wildlife habitats. In addition, some of the key design features of the agency alternatives (see the Environmental Protection and Mitigation Measures applied to Alternatives C, D, and E for wildlife in Table 2.6-8, and the special protective measures for wildlife in Sections 2.4.1.2 and 2.6.1.4) are specifically intended to avoid, prevent, or minimize potential impacts to wildlife, including sage-grouse.  |
| 192       | Wildlife                    | Sage-grouse are known to winter on Prickly Pear and Sagebrush Flat Mesas. The roads that bisect these crucial habitats should be rerouted to avoid this important sage-grouse wintering area.   | Under the Proposed Action, Alternative C, and the Agency Preferred Alternative, existing roads that bisect sage-grouse core winter use areas would be re-routed (for the Proposed Action see Section 2.2.2.2, Appendix B, and Figure 2.2-1; for Alternative C see Section 2.4.1.2 and Figure 2.4-1; for the Agency Preferred Alternative see Section 2.6.1.4 and Figure 2.6-1).  |
| 193       | General                     | The BLM must disclose who provided independent analysis of the information submitted by BBC and BBC's third-party consultants and the qualifications of those reviewers.  | The third-party consultants that assisted BLM with the development of this EIS were approved by and work for the BLM. The EIS contains a list of preparers, along with each preparer's area of expertise/responsibility. This list is consistent with the requirements set forth at 40 C.F.R. §§ 1502.17 (list of preparers) and 1506.5(a) (agency responsibility to independently evaluate information submitted by an applicant).  |
| 194       | Directional Drilling Report | BLM should scrutinize the information submitted on well locations and directional drilling contained in the DEIS.   | A BLM petroleum engineer has independently reviewed and concurred with the directional drilling report, which was prepared independently by a third-party contractor.  |



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| 195       | NEPA/ Alternatives                    | Every development alternative – and likely even the No Action Alternative in some cases – violates the current Price River Management Framework Plan (MFP) and the Desolation and Gray Canyons of the Green River Management Plan (River Management Plan), forecloses options in the pending Price and Vernal Resource Management Plans (RMPs), and would intrude upon WSAs, WCAs, and existing and proposed ACECs. | See response to comment #52. Alternatives B and D would be consistent with the Desolation and Gray Canyons of the Green River Management Plan, as no development would be allowed within sight and sound of the Green River. Alternatives A, C, and E may be inconsistent with this plan as a limited amount of development could be within sight and sound of the Green River. However, all development would be located on pre-FLPMA leases within the WSAs that predate the establishment of the 1979 river management plan.  |
| 196       | Alternatives                          | None of the development alternatives significantly differ in terms of the number of proposed wells on leased lands.   | Several alternatives that would inherently result in fewer numbers of proposed wells were considered but eliminated from detailed analysis for failing to meet the purpose and need for the project. These alternatives are discussed in Section 2.8. Tables 2.6-7 and 2.6-8 set forth numerous measures, which would significantly reduce or eliminate impacts to various resource areas under Alternatives C, D, E, regardless of well count. It should also be noted that under Alternative D, surface occupancy would be prohibited in various areas and currently unleased lands would not be offered for leasing in areas with wilderness characteristics. These stipulations would eliminate approximately 51 well pads when compared to the Proposed Action. Under Alternative E, directional drilling would substantially reduce the number of well pads within the WSAs. |
| 197       | Alternatives                          | The “Conservation Alternative,” Alternative D, fails to minimize surface impacts when compared to the other development alternatives.   | The Conservation Alternative reduces total initial surface disturbance by over 30 percent when compared with the Proposed Action.  |
| 198       | Alternatives/<br>Directional Drilling | None of these alternatives adopt a more aggressive directional drilling framework to reduce surface impacts.  | Alternative E, the Agency Preferred Alternative would require directional drilling to reduce surface impacts within canyon bottoms, WSAs, and the potential Nine Mile Canyon ACEC.   |
| 199       | Alternatives/<br>Directional Drilling | Greater use of directional drilling is both technically feasible and economically practical. Alternate well locations and greater use of directional drilling would help alleviate some of the conflicts presented in the development alternatives and decrease surface impacts. The BLM must consider a new alternative that makes use of 160-acre well pad spacing.   | See responses to comments #759-#772.   |
| 200       | Alternatives                          | The BLM must also scrutinize the DEIS's dismissal of the lease exchange alternative, the lease buy back alternative, and the leases suspension alternative since the rejection of these alternatives relies on erroneous information, an overly narrow purpose, and very little analysis.   | See response to comment #217.  |

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| 201       | NEPA/ General                  | B&A has a conflict of interest that prohibits the company's ability to evaluate the potential impacts of this proposed project and the various alternatives on the Desolation Canyon and Jack Canyon WCAs.   | In response to similar past allegations, the Utah BLM State Director stated in a memo dated February 20, 2008, that B&A has demonstrated no conflict of interest in its preparation of NEPA documents.<br><br>The WTP EIS has been collaboratively developed by the third-party contractor, in conjunction with the BLM, as is indicated in Chapter 7 of the EIS. Any information submitted by consultants has been independently reviewed and accepted by the BLM. Additionally, the majority of the baseline information included in Chapter 3 (Section 3.17) comes directly from the BLM's 1999 Wilderness Inventory Report and the BLM's 2007 re-inventories. |
| 202       | NEPA/ General                  | The work B&A has conducted for IPAMS – challenging wilderness character findings and SUWA's efforts to protect those values – runs counter to the notion of independent review and scrutiny of the DEIS.   | See response to comment #201.   |
| 203       | NEPA/ General                  | The conclusions reached by B&A regarding the nature and extent of the impacts from the various alternatives on the Desolation Canyon and Jack Canyon WCAs, as well as the Chapter 3 description of these areas, is undermined by B&A's work conducted for IPAMS to challenge that such characteristics exist in the first place.   | See response to comment #201.   |
| 204       | NEPA/ General                  | B&A was required to sign a disclaimer stating that the company has "no financial or other interest in the outcome of the project." The contract that B&A was awarded by IPAMS, of which BBC is a member, represents a potential interest benefiting a consulting firm.   | See response to comment #201.   |
| 205       | NEPA/ General                  | B&A's involvement with IPAMS and BBC in the preparation of reports documenting the lack of wilderness in WCAs does not preserve the objectivity and integrity of the NEPA process. There is simply too much overlap and connection between the DEIS analysis of wilderness characteristics and the inventories conducted by B&A, or for which it was contracted to conduct, intended to show a supposed lack of wilderness characteristics in WCAs for various BLM RMPs in Utah. | See response to comment #201.   |
| 206       | NEPA/ General/<br>Alternatives | B&A's interest in the outcome of this project likely resulted in a dismissal and simplistic rejection of a lease buy back or exchange alternative for leases inside WSAs and WCAs.   | See response to comment #201.   |
| 207       | NEPA/ General/<br>Alternatives | B&A's conflict of interest also likely led to a dismissal of the important values of WCAs and ACECs.   | See response to comment #201.   |

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| 208       | NEPA/ General/ Alternatives        | B&A's conflict of interest resulted in an overly narrow purpose and need section in the DEIS.   | See response to comment #201.  |
| 209       | NEPA/ General/ Alternatives        | B&A has an interest in the outcome of the DEIS and therefore its analysis of impacts to wilderness values, ACECs, and alternatives should be entirely disregarded.  | See response to comment #201.  |
| 210       | Alternatives                       | Regardless of what alternative BLM ultimately selects (with the exception of a lease exchange/buyback alternative), it must also prepare a land use plan amendment to address this conflict and permit the public to review this proposed change to the land use plan.  | See response to comment #52.   |
| 211       | Alternatives                       | The BLM must fully analyze and consider a lease exchange/buyback alternative since well production data is readily available in the area, such estimates are not completely reliant on well production, and it is the only alternative that will accomplish the stated goals of the BLM in the Price River MFP, the River Management Plan, the management of Desolation Canyon and Jack Canyon WSAs, and the Draft Price RMP. | As discussed in Section 2.8.1, "This option was not analyzed in detail because it does not meet the BLM's purpose and need, which is to allow development of WTP lease rights held by BBC and other operators in an environmentally sensitive manner. In addition to interfering with valid existing lease rights, a decision to buy back leases held by production would interfere with existing infrastructure, development, and production occurring on those leases previously authorized by the BLM. Based on this information, an alternative analyzing rescinding existing Federal leases was eliminated from detailed analysis." The BLM's decision to dismiss this alternative was not predicated on available production data. |
| 212       | Alternatives                       | The BLM must also fully consider and analyze an option that would suspend all post- FLPMA leases found within the two WSAs.   | There are no post-FLPMA leases within the Jack and Desolation Canyon WSAs.   |
| 213       | Alternatives                       | The BLM must also consider alternatives that will not violate the management standards for the two WSAs, as detailed in Handbook H-8550-1 Interim Management Policy for Lands under Wilderness Review.  | The EIS contains a range of alternatives that are consistent with Handbook H-8550-1 Interim Management Policy for Lands under Wilderness Review. Also see response to comment #301.  |
| 214       | Alternatives/ Special Designations | Alternatives A, C, and E violate the IMP by allowing new roads and pad locations inside of Desolation Canyon and Jack Canyon WSAs.  | See response to comment #301.  |
| 215       | Alternatives                       | The BLM may not promote an alternative that would violate the IMP, which Alternative E currently does.  | See response to comment #301.  |

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| Comment #   | Topic/ Resource | Public Comment   | BLM Response  |
| 216   | NEPA/ General   | The DEIS fails to take a “hard look” at the direct, indirect, and cumulative impacts of the proposed project on air quality, soils, global warming, resources affected by the housing proposals, water, resources affected by the proponent’s mitigation plans, leases, cultural resources, existing and proposed ACECs, recreation, wildlife, vegetation, visual resources, WCAs and WSAs, sound, and socioeconomics.   | See the detailed responses to more specific questions.  |
| 217   | Alternatives    | The BLM should consider a combined alternative that would allow development of BBC’s existing leases in the western portion of the project while implementing 160-acre surface spacing to minimize impacts, that would access the leases via a route through Trail and Harmon Canyons, that would not permit new roads or well pads inside of the WSAs, that would suspend all post-FLPMA leases found inside of the WSAs, and that would implement a lease buy back/exchange for the leases inside of the WCAs. | <p>The five alternatives analyzed in detail (see Sections 2.1 – 2.6), in conjunction with the seven alternatives considered but eliminated from detailed analysis (see Section 2.8), demonstrate the BLM’s careful consideration, exploration, and evaluation of a full range of alternatives as required at 40 CFR 1502.14.</p> <p>The range of alternatives, as well as the numerous BMPs, environmental protection measures, and mitigation measures (see Tables 2.2.1, 2.6-7, 2.6-8), included in the EIS were developed by the BLM and Cooperating Agencies in direct response to issues raised during the internal and public scoping processes. Furthermore, these alternatives have been refined and resource-specific mitigation measures have been added to the FEIS to respond to comments received during public comment period for the DEIS.</p> <p>Specifically, as outlined in the alternative-specific introduction statements in Chapter 2.0, each alternative was developed to directly respond to the range of issues raised by the public, BLM and Cooperating Agencies:</p> <ul style="list-style-type: none"> <li>• Alternative A is the operators’ Proposed Action for full field development.</li> <li>• Alternative B is the No Action Alternative, which is required by CEQ regulations.</li> <li>• Alternative C, the Transportation Reduction Alternative was developed to address transportation concerns that were expressed by the public during the scoping process. The primary concerns identified were increased traffic on existing roads, safety hazards created by increased traffic volumes, and adverse impacts that traffic could have on recreation and natural and cultural resources.</li> <li>• Alternative D, the Conservation Alternative, was developed to respond to public concerns and opposition to oil and gas development and production activity within the Jack Canyon and Desolation Canyon WSAs, the potential Nine Mile Canyon and Desolation Canyon ACECs, and other sensitive areas (e.g., canyon bottoms, non-WSA lands with wilderness characteristics, crucial wildlife habitat, and high-country watersheds).</li> <li>• Alternative E, the Agency Preferred Alternative incorporates key elements of the Transportation Impact Reduction Alternative and Conservation Alternative; and includes additional public safety/recreation, cultural resource, and wildlife mitigation measures.</li> </ul> <p>The design features of these alternatives and the included BMPs, environmental protection measures, and mitigation measures address the full spectrum of resource concerns and issues that could be affected by natural gas development</p> |

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|           |                 |   | in the WTP Project Area, and directly respond to concerns such as those brought forward in this comment.   |
| 218       | Air Quality     | As part of its air quality comments, SUWA incorporates and adopts the comment letter from Ms. Megan Williams to the BLM regarding the DEIS.   | See responses to comments #343 - #470.   |
| 219       | Air Quality     | The BLM failed to consider the cumulative air quality impacts of this project combined with other projects in the region.   | The cumulative impacts of the WTP project are fully discussed in Chapter 5 of the EIS and in the Near-Field, Far-Field, and Ozone Modeling analyses within the Air Quality Technical Support Documents in Appendix J.  |
| 220       | Air Quality     | The DEIS does not analyze the fact that this project – even under Alternative B, the No Action Alternative – will result in violations of NAAQS.  | No documentation was provided to substantiate these claims and predicted impacts presented in Sections 4.3 and 5.3 of the EIS did not indicate potential exceedances of any standards other than ozone.  |
| 221       | Air Quality     | The combination of any of the action alternatives analyzed in the DEIS combined with the recently-approved project analyzed in the ROD and FEIS, Greater Deadman Bench Oil and Gas Producing Region, Questar Exploration and Production Company, UT-080-2003-0369V (January 2008) alone will violate NAAQS in the Greater Deadman Bench area and at the Ouray National Wildlife Refuge along with the CAA's PSD increments. | See response to comments #219 and #220.  |
| 222       | Air Quality     | Combined with other proposed and recently approved projects in the Uinta Basin – including, but not limited to, the Greater Deadman Bench project – the WTP DEIS would lead to exceedances of NAAQS and PSD increments.   | See response to comments #219 and #220.  |
| 223       | Air Quality     | The BLM is required to comply with the CAA by FLPMA, agency regulations, and its own land use plans. This means that the BLM may not approve the DEIS if it results in exceedances of NAAQS or PSD increments.  | See response to comment #935.  |
| 224       | Air Quality     | As part of its air quality modeling, the DEIS incorrectly assumes that the heavy duty pickups used by BBC, its contractors, and other operators in the project area will all be gasoline powered, when in fact many of these vehicles are diesel powered.   | The emission factors used to complete air quality modeling for the EIS included realistic assumptions for vehicle traffic, number of drill rigs, drilling operations, compression, etc. Vehicle count, vehicle information, and other input values for the modeling effort was verified by the operator and independently reviewed by the BLM's air quality specialists prior to the modeling being conducted. See also responses to #219, #220, and #345. |
| 225       | Air Quality     | Modeling must be recalculated to more accurately reflect the use of diesel powered pickups in the project area.   | See response to comment #224.  |

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| 226       | Soils           | The DEIS incorrectly assumes that long-term surface disturbance will be much less than the initial surface disturbance due to reclamation measures (see, e.g., DEIS at 2-19 to -20). This assumption then impacts the entire analysis found in the DEIS; as in, it assumes that erosion rates will no longer increase once reclamation succeeds in stabilizing soils, it assumes that water quality impacts will decrease as interim reclamation succeeds, it assumes that surface impacts will rapidly disappear, and it assumes that air quality impacts from fugitive dust will decrease as soils stabilize from successful interim reclamation. | Based on the climatic conditions, as well as previous experience with oil and gas development, the BLM has determined that it is reasonable to believe that interim reclamation measures can substantially reduce the amount of initial surface disturbance within the WTP Project Area. In addition, under Alternatives C, D, and E, the BLM has established surface-disturbance thresholds to assure that successful interim reclamation is achieved (Appendix C – Surface Disturbance Thresholds).  |
| 227       | Soils           | The DEIS must recalculate impacts from well pad construction, road and pipeline corridor construction, and all other surface-disturbing activities to account for the fact that interim reclamation will likely fail.   | See responses to comments #226.  |
| 228       | Soils           | The DEIS does not fully evaluate how failure of interim reclamation would affect the estimates of yearly soil erosion, vegetation loss, water contamination, and air quality degradation for the project area.  | See response to comment #226.  |
| 229       | Soils           | The DEIS contains insufficient discussion of the importance of biological soil crusts, the sensitivity of these crusts to disturbance and their slow rate of restoration, or their actual distribution in the project area.   | The importance of biological crusts is acknowledged in Section 3.4.4 of the DEIS where it is stated “These soil crusts have important ecological roles in desert areas, including fixing carbon and nitrogen for plants, reducing surface albedo (and thus raising soil temperatures), increasing water infiltration rates, and stabilizing fragile soils by reducing water and wind erosion.” This section also states “Threats to biological crusts include livestock grazing, human foot traffic, motorized vehicles, drought, invasive species, and fire. A loss of biological crust can substantially increase runoff and the hazard of water and wind erosion.” The last sentence of this section has been modified to include a range of recovery rates in the western U.S. deserts. The actual distribution of biological crusts in the WTP Project Area is unknown. |
| 230       | Soils           | The BLM should consult such resources as the following: Belnap, J., “Recovery Rates of Cryptobiotic Crusts: Inoculant Use and Assessment Methods,” 53 Great Basin Naturalist (1), 89-95 (1994). Belnap, J., et al., “Biological Soil Crusts: Ecology and Management,” U.S. Dep’t of the Interior, BLM, Technical Reference 1730-2 (2001). Johansen, J.R. and S.R. Rushforth, “Cryptogrammic Crusts: Seasonal Variation in Algae Populations in the Tintic Mountains, Juab County, Utah, USA,” 45 Great Basin Naturalist 14-21 (1985).   | BLM Technical Reference 1730-2 forms the basis for the analysis of biological crusts in the DEIS and is included in the reference list.  |

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| 231       | Soils           | It is vital that the BLM map biological soil crusts to accurately understand the likely impacts of this project on those crusts, and the secondary impacts of failed reclamation, increased erosion, and poor water quality.  | Biological soil crust surveys have not been conducted in the WTP Project Area. The presence of biological crusts would be evaluated during the APD process for each proposed project facility. Consideration would be given to relocating project facilities that would destroy significant amounts of biological crusts (see Table 2.6-8).  |
| 232       | Soils           | The DEIS contains no analysis (direct, indirect, or cumulative) of how surface-disturbing activities from this project will increase eolian dust deposition – or cumulative eolian dust deposition from this project and other disturbances – on regional climate, mountainous snow cover, or terrestrial nutrient cycling. Such depositions can accelerate snow melt and reduce snow cover by significant amounts – up to a month – in nearby mountains thereby negatively impacting water availability, can modify regional climate, and reduce soil fertility. | Increased dust due to traffic is discussed in Sections 4.4.1.2, 4.4.2.2, 4.4.3.2, 4.4.4.2, and 4.4.5.2. The potential impacts of dust on water quality are discussed in Sections 4.5.1.1, 4.5.2.1, 4.5.3.1, 4.5.4.1, and 4.5.5.1. The impacts of dust on vegetation are discussed in Sections 4.8.1.1, 4.8.2.2, 4.8.3.2, 4.8.4.2, and 4.8.5.2. The potential impacts of dust on near-field and far-field air quality are discussed in Sections 4.3.1.1, 4.3.1.2, 4.3.2.1, 4.3.2.2, 4.3.3.1, 4.3.3.2, 4.3.4.1, 4.3.4.2, 4.3.5.1, 4.3.5.2, 4.3.6.1, and 4.3.6.2. The effect of dust on mountain snow cover is an emerging research area that is too speculative to address in, and beyond the scope of, the WTP EIS. |
| 233       | Global Warming  | Although recognizing global warming and human-caused contributions as a potential concern in its Chapter 3 background, the DEIS fails to provide any analysis of the contributions of this project to global warming. It neither quantifies these greenhouse gas emissions, nor does it analyze their potential contribution to global warming.   | See response to comment #1182.   |
| 234       | Global Warming  | The DEIS fails to analyze predicted climate changes in the WTP Project Area and the Colorado Plateau in general. This omission is a significant oversight given that Federal departments and agencies including the Department of Interior, the U.S. Environmental Protection Agency (EPA), and the U.S. Geological Survey have all published reports and/or provided public statements and congressional testimony acknowledging the impacts of climate change on public lands resources.  | See response to comment #1182.   |
| 235       | Global Warming  | The BLM should have discussed the predicted effects of global warming in the Chapter 3 assessment of existing conditions and then provided actual analysis in the Chapter 4 discussion of the impacts to global warming from the various alternatives of this project.  | See response to comment #1182.   |

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| 236       | Global Warming                        | A description of the current effects of climate change on existing conditions such as the prevalence of exotic plant species, the availability of water and the health of riparian areas, and zones of soil erosion or vulnerability to erosion, all provide critical baseline information necessary to the BLM's ability to determine whether the WTP Project Area and the PriceField Office's resources can sustain any of the proposed alternatives for either the long or short-term. | See response to comment #1182. See WO IM 2008-171 – The present influence of global climate change cannot be measured or estimated at this time. Potential effects of future climate change have been described in general since little or no specific climate change data are available for the Nine Mile Canyon area. Also see response to comment #145. |
| 237       | Global Warming                        | The predicted impacts of climate change should shape the various alternatives under consideration by the BLM in the DEIS.   | See response to comment #217.  |
| 238       | Global Warming                        | The BLM must design alternatives that minimize soil disturbance as much as possible given that so many of the predicted outcomes of climate change center on increased soil erosivity, dust storms, shrinking water resources, loss of riparian areas, invasion of exotic plants, and the spread of hotter, larger wildfires.   | See response to comment #217.  |
| 239       | Global Warming                        | The combination alternative recommended by SUWA would do more to reduce surface impacts than the development alternatives presented in the DEIS.  | See response to comment #217.  |
| 240       | Global Warming                        | The BLM must require the capture of methane gas from all well heads and eliminate leakage from all pipelines and well facilities.   | The BLM does require operators to capture (eliminate leaks) of methane gas during operations. Federal regulations outline the requirements for control of emissions and pollution from oil and gas operations (Title 43 – Public Lands: Interior Chapter II – BLM, Department of the Interior, Part 3160 – Onshore Oil and Gas Operations).                |
| 241       | Global Warming/<br>Cumulative Impacts | The DEIS does not discuss the cumulative effects of various uses like ORV recreation and grazing on, for example, riparian areas and soil stability. These cumulative effects should also be considered in the context of climate change and how these uses, combined with the proposed project, will act to exacerbate climate change on both a global and regional scale.   | See response to comment #1182, which indicates that information on green house gas emissions has been added to the FEIS.   |



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| 242       | Alternatives             | The DEIS does not fully analyze the likely impacts from the proposed housing units and man camps, which would be located in the project area under various alternatives (see DEIS at 2-3). The BLM must consider the likelihood that such housing will result in increased rates of vandalism of cultural resources, illegal off-road vehicle use, the proliferation of exotic weeds, and will generally increase surface disturbance. | The impacts of worker housing locations on cultural resources are discussed within various sections of the EIS. Under Alternative D, there would be no temporary worker housing locations in order to reduce potential for worker-related impacts on cultural resources. For all other alternatives, the EIS has been modified to include potential effects of worker housing on vegetation resources, rangeland resources, wildlife, and recreation.   |
| 243       | Water                    | SUWA expressly incorporates Mr. Elliot Lipps' comments by reference.   | See responses to comments #773-#810.  |
| 244       | Water                    | The alternatives analyzed in the DEIS will result in violations of the CWA, which the BLM cannot approve.  | The analysis does not project any violations of the CWA. Since the comment does not present any evidence to support the conclusion, BLM cannot specifically respond.  |
| 245       | Water                    | The DEIS fails to quantify the various contaminant levels – contaminants as identified in the CWA – that will result from this project.  | The environmental consequences sections discuss potential impacts to water resources in a qualitative manner. Quantification of contaminant levels would require an extensive modeling effort that would not be commensurate with the anticipated level of impact. Given the number of variables and assumptions which would have to be made, the results of any model which calculate changes to individual water quality parameters would be too speculative. Inclusion of the Long-term Water Quality Monitoring Program (Alternatives C, D, and E) would detect any significant changes to water quality. |
| 246       | Water                    | The DEIS fails to quantify contaminant levels to be expected from cumulative impacts in the area.  | See response to comment #245.   |
| 247       | Water                    | The BLM must disclose the TMDL for Nine Mile Creek and then determine whether this project will lead to violations of those standards.   | TMDLs have not been established for Nine Mile Creek by the State of Utah. According to Utah's 2006 Integrated Report, no target date has been set for establishment of TMDLs for Nine Mile Creek.   |
| 248       | Water                    | The DEIS discloses that Nine Mile Creek is one of the State of Utah's "Section 303(d)" – referring the relevant section from the CWA – impaired waters, yet it fails to analyze how this project will contribute to further impairment.  | Chapter 4 of the DEIS discusses the potential impacts on temperature within Nine Mile Creek from increased sedimentation. The text has been revised to disclose that further impairment of the beneficial uses of Nine Mile Creek (Class 3A – cold-water game fish) may result from the Proposed Action or alternatives, and that the actions may prevent the removal of Nine-Mile Creek from the Utah 303(d) list.   |
| 249       | Water                    | The DEIS likely understates erosion because of its mistaken assumption that reclamation will be successful. The water quality problems are only likely to increase.  | The DEIS discloses erosion estimates for both the short-term (initial impacts) and long-term (residual impacts), and clearly states that these estimates are approximate and should be regarded as accurate only to within +/- 100 percent. See response to comment #226.   |
| 250       | Wildlife Mitigation Plan | The DEIS contains no specifics regarding the proposed wildlife mitigation plan. The plan itself is a mere page-and-a-half of general assertions that lack any specific details on proposed locations for mitigation, on the methods of mitigation, and on the potential impacts of the intensive mitigation planned.   | The Agency Wildlife Mitigation Plan was developed in response to BBC's voluntary wildlife mitigation plan. With a few exceptions (e.g., road realignments), the agencies' plan carries forward operator's initial mitigation commitments.<br><br>Also see response to comment #107.   |

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| 251       | Wildlife Mitigation Plan               | The plan fails to take a hard look at the likely impacts of the proposed mitigation, and does not provide enough detail for the public to evaluate and comment on the proposed mitigation measures and their efficacy. | See response to comment #250.<br><br>The EIS discloses both the potential positive and negative effects of the BBC and Agency Wildlife Mitigation Plans. For example, see Section 4.9.1.1 under the heading Wildlife Mitigation Plan.   |
| 252       | Wildlife Mitigation Plan               | The BLM must develop a specific, detailed plan and provide it for public comment.  | See response to comment #250.   |
| 253       | Mitigation Monitoring/ Compliance Plan | The Mitigation Compliance and Monitoring Plan lacks specifics and provides nothing for the public to evaluate and comment on.  | The mitigation compliance and monitoring plan contains sufficient detail for analysis purposes. A more detailed plan would be developed based on the information in Appendix D, if the plan is incorporated into the ROD. The details of the mitigation compliance and monitoring program plan provided in Appendix D are intended to allow for an adaptive approach to monitoring and compliance. As explained in Appendix D, upon signing of the ROD, the BLM and operators would develop an MOU that clearly outlines the specific mitigation measures required as part of the monitoring plan. Mitigation measures would be required during the development, production, and final abandonment and reclamation phases of the WTP project. Specific monitoring requirements would vary depending on the mitigation measures that are incorporated into the ROD, which understandably, would depend upon the alternative selected in the ROD. Also, in support of an adaptive approach, the MOU would explain the need for an annual performance and planning meeting to be held between the BLM, operator, and monitoring contractor. As described in Appendix D, the purpose of the annual meeting would be to review the operator's compliance with monitoring requirements; review performance by the monitoring contractor; review the adequacy of the monitoring requirements and techniques; and identify monitoring goals for the next calendar year. This performance and planning meeting would be held at the Price Field Office during the 4th quarter of each calendar year starting in Year 1 of the WTP development phase (after the ROD has been signed). |
| 254       | Mitigation Monitoring/ Compliance Plan | The BLM must develop a specific, detailed mitigation monitoring and compliance plan, and provide it for public comment.  | The details of the mitigation compliance and monitoring program plan provided in Appendix D are intended to allow for an adaptive approach to monitoring and compliance. As explained in Appendix D, upon signing of the ROD, the BLM and operators would develop an MOU that clearly outlines the specific mitigation measures required as part of the monitoring plan. Mitigation measures would be required during the development, production, and final abandonment and reclamation phases of the WTP project. Specific monitoring requirements would vary depending on the mitigation measures that are incorporated into the ROD, which understandably, would depend upon the alternative selected in the ROD. Also, in support of an adaptive approach, the MOU would explain the need for an annual performance and planning meeting to be held between the BLM, operator, and monitoring contractor. As described in Appendix D, the purpose of the annual meeting would be to review the operator's compliance with monitoring requirements; review performance by the monitoring contractor; review the adequacy of the monitoring requirements and techniques; and identify monitoring goals for the next calendar year. This performance and planning meeting would be held at the Price Field Office during the 4th quarter of each calendar year starting in Year 1 of the WTP development phase (after the ROD has been signed).   |
| 255       | Alternatives                           | The DEIS fails to take a hard look at the options available to the BLM in dealing with BBC's pre- and post- FLPMA WSA leases.  | See responses to comments #211-#213 and #217.   |

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| 256       | Alternatives         | Despite the language of the document, resigned to completely relinquishing all control for time, manner, and place of gas development in the WSAs to BBC, the BLM maintains broad control over the leases and has an obligation to prevent impairment to the WSAs.  | Under Alternatives B and D, there would be no development within the WSAs. As discussed in Section 2.6.13, "Under Alternative E, some development would occur within the Jack Canyon and Desolation Canyon WSAs. The IMP and Guidelines for Lands Under Wilderness Review (H-8550-1) recognizes valid and existing rights with a provision that efforts be made to minimize unnecessary or undue degradation to wilderness values. Although mitigation measures for construction in WSAs are not explicitly disclosed, numerous mitigation measures for various resource values contained within Tables 2.6-7 and 2.6-8 would serve to minimize impacts." |
| 257       | Alternatives         | The DEIS has not listed the relevant leases held by BBC that would permit the company to drill in WSAs and WCAs. The public has no ability to review these leases to ensure that they are valid and promise the rights discussed by the BLM. The DEIS must indicate which leases BBC, and other operators, currently hold in the project area and then give the public time to review these leases and comment on them.   | A list of leases within these areas has been added to Section 3.17.   |
| 258       | Cultural             | SUWA expressly incorporates Mr. Jerry Spangler's comments by reference.   | See responses to comments #834-#866.  |
| 259       | Special Designations | By approving Alternative A, C or E, the BLM will limit its ability to establish the proposed Desolation Canyon and Nine Mile Canyon ACECs being considered as part of the Draft Price RMP.<br><br><i>NOTE: At the time the DEIS was published in January 2008 only the Vernal Field Office had a designated (existing) ACEC in Nine Mile Canyon. The Price Field Office was considering designation of the potential Nine Mile Canyon ACEC within its Field Office boundaries as part the land use planning process. Within the Approved RMP (October 2008), the Price Field Office designated portions of Nine Mile Canyon as an ACEC.</i> | See response to comment #52.  |
| 260       | Special Designations | The DEIS asserts that "an ACEC designation does not necessarily change the allowed use of the land." (DEIS at 4-354 to -355). This ignores the DEIS's own conclusion that impacts to the relevant values for these proposed ACECs will be "substantial" and that the predicted cumulative impacts to these ACECs are very high, in spite of a congressional mandate to prioritize ACEC designation and protection.  | See response to comment #52.  |

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| 261       | Special Designations | Instead of taking a hard look at the limitations and tradeoffs in terms of ACEC protection, the DEIS analysis seems to focus on downplaying any protective value of a potential ACEC and the mandate that such protection be given priority.   | ACEC designations were made within the Approved RMP. The Approved RMP designated the Nine Mile Canyon ACEC to protect the area's relevant and important values. The Desolation Canyon ACEC was not designated in the Approved RMP for reasons disclosed on page 46 of the Approved RMP. However, the EIS adequately discloses the potential impacts to the relevant and important values for which each of these ACECs were nominated.  |
| 262       | Special Designations | The DEIS failed to take a hard look at potential impacts to the existing Nine Mile Canyon ACEC. The DEIS contains very little analysis of these impacts, instead punting a discussion of them to other sections.   | <p>The relevant and important values for which the existing Nine Mile Canyon ACEC was designated include cultural, visual, and wildlife resource values. Impacts to these relevant and values are discussed in detail within these specific resource sections.</p> <p>The Price Field Office must recognize valid existing rights, and it must ensure that any attempts to develop those rights do not unnecessarily degrade the relevant and important values for which the Nine Mile Canyon ACEC was designated. BLM alternatives (C, D, and E) contain numerous mitigation measures (see Table 2.6-8) that would reduce impacts to the relevant and important values for which the Nine Mile Canyon ACEC was designated in the Diamond Mountain RMP. Section 4.17 of impact analysis has been revised to include a more thorough discussion of these mitigation measures and the residual impacts.</p> |
| 263       | Special Designations | The BLM has not taken a hard look at how impacts to the relevant values for which the Nine Mile ACEC was designated will clash with its current land use plans.  | See response to comment #262.   |
| 264       | Special Designations | The BLM must disclose that its development alternatives will lead to a significant impact on the relevant values for which the Nine Mile Canyon ACEC was designated in violation of this designation and BLM's regulatory duties.  | See response to comment #262.   |
| 265       | Recreation           | The development alternatives evaluated in the DEIS would violate the management guidelines for the Nine Mile Canyon Special Recreation and Cultural Management Area (SRCMA) by diminishing the recreational experience.  | Appendix 2 of the Nine Mile Canyon SRCMA Plan identifies the multi-resource management objectives and constraints, which guide the overall management of BLM-administered lands within the Nine Mile Canyon SRCMA, and provide the parameters within which the management program on BLM-administered lands is developed. This appendix includes a provision to "allow and encourage development of those leasable minerals known to occur within the planning area in accordance with current laws and regulations so as to aid in filling the local and national energy requirements." In addition, Section 4.1.1 of the EIS discloses potential impacts to the SRCMA, including the diminished quality of the recreational experience.   |
| 266       | Recreation           | Every development alternative considered in the DEIS would also violate the River Management Plan by placing sights and sounds of development within the river view.   | See response to comment #139.   |
| 267       | Recreation           | The DEIS fails to analyze the decreased primitive recreational experience and opportunities for solitude that will result to both hikers, hunters, and river runners in the project area as a result of increase off-road vehicle use in the area facilitated by the increased development and improved and new roads. | The DEIS states in Section 4.11.1.2 that it can be assumed that the shift to a more industrialized landscape may result in a reduction in the number of dispersed recreational users (e.g., hikers, campers, mountain bikers, etc.), who would normally be attracted to the more primitive settings currently found within the WTP Project Area. Under the subsection "Primitive and Unconfined Recreation," the DEIS further states that the opportunity to recreate in an undeveloped landscape would be lost over large portions of the WTP Project Area due to increased motorized access. A parenthetical reference to OHV use has been added to Section 4.11.1.2.   |

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| 268       | Wildlife        | The DEIS inexplicably concludes that while this project is likely to result in a downward population trend for sage-grouse, the wildlife mitigation plan will rectify any such decreases in the WTP Project Area.  | The EIS does not state that the BBC Wildlife Mitigation Plan or Agency Wildlife Mitigation Plan would “rectify” impacts to sage-grouse populations, nor does it attempt to underestimate the potential effects of the project on sage-grouse populations or habitats. Instead, Section 4.10.2.2 concludes that provided BBC's Wildlife Mitigation Plan is successfully implemented, development activities and subsequent impacts to sage-grouse and sage-grouse habitats within the WTP Project Area under the Proposed Action could be partially mitigated. Similarly, under the sage-grouse impact analyses in Sections 4.10.4.2, and 4.10.6.2, the EIS concludes that provided the objectives of the Agency Wildlife Mitigation Plan are successfully met, habitat loss impacts to sage-grouse from Alternatives C or E could be largely mitigated as a result of requirements to implement and/or fund wildlife habitat enhancement projects. Nonetheless, impacts to sage-grouse could occur. |
| 269       | Wildlife        | The wildlife mitigation plan provides absolutely no studies or analysis showing that sage-grouse are likely to be relocated successfully or are willing to accept mechanically created habitat in a new area as is proposed in the mitigation plan.                            | BBC's Wildlife Mitigation Plan and the Agency Wildlife Mitigation Plan are not intended to be studies on sage-grouse relocation success, or studies on the potential for mitigation success. Rather, as described within the plans themselves and in the response to comments #107 and #180, these Wildlife Mitigation Plans provide an adaptive approach or plan for implementing mitigation measures to offset effects of the proposed natural gas development on big game, sage-grouse, and raptors. The annual review component of the plans would allow the BLM and other wildlife officials and scientists to determine whether or not the planned mitigation measures are working successfully, and would provide them methods to modify and improve mitigation measures as wildlife needs and resources change over time.   |
| 270       | Wildlife        | The DEIS fails to consider the likelihood that the increased energy development activity in the area will lead to increased rates of poaching.   | The potential for increased harassment and/or poaching of big game species is addressed in Sections 4.9. Impact analyses for upland game birds (Section 4.9), and in particular sage-grouse (Section 4.10), have been modified to acknowledge that increased access to the WTP Project Area could result in increased poaching of game bird species, including sage-grouse.   |
| 271       | Wildlife        | The DEIS claims that proposed mitigations will result in a net benefit for sage-grouse, but this is not self-evident. The BLM must ensure that mitigations are effective.  | As discussed in Section 4.10.6.2, provided the objectives of the Agency Wildlife Mitigation Plan are successfully met, habitat loss impacts to sage-grouse from Alternative E could be largely mitigated. The impact analyses within the EIS do not propose implementation of proposed mitigation measures would result in a net benefit to sage-grouse. See response to comments #180 and #254.  |
| 272       | Wildlife        | The proposed road realignments in this project should be conducted whether or not this project is approved.  | The BLM appreciates the commenter's suggestions; however, implementation of the proposed road realignments would have a separate purpose and need and therefore is outside the scope of the proposed natural gas development project. Therefore, realignment of the roads without approval of oil and gas development is not analyzed as a separate alternative.  |
| 273       | Wildlife        | The BBC Wildlife Mitigation Plan does not include reclamation of existing road segments as part of their proposed road realignments for sage-grouse. Without proper obliteration, it is likely that these road segments will remain in use even if they are officially closed. | The comment is correct in noting that BBC does not include reclamation of existing road segments as part of their proposed plan. Under the road realignment commitments in the operators' Wildlife Mitigation Plan, the plan states “reclamation of the existing but proposed unused road sections... are not included at this time but can be completed as mitigation in future years, as deemed appropriate by the WTPMOC.” The BLM concurs that if closed roads are not properly reclaimed continued use could occur. It should be noted that reclamation of existing road segments is considered in conjunction with road realignments for sage-grouse under the Agency Preferred Alternative (see Section 2.6.12.1). The decision as to which alternative or combination of alternatives will be selected, will be included in the ROD for this project.   |

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| 274       | Wildlife        | Pinyon-juniper removal is only appropriate if sagebrush habitat has only recently been invaded. Removal of either pinyon-juniper or old stands of sagebrush may only have a positive effect if the BLM also actively works toward creating and supporting an understory composed of native plants. | Site-specific methods for habitat improvement will be determined during site-specific planning for wildlife mitigation projects, if the operator or Agency Wildlife Mitigation Plan is carried forward as part of the ROD. Also see the response to comment #107.   |
| 275       | Wildlife        | Creating new wet meadows does not mitigate the loss of crucial winter habitat.   | The primary objective of the BBC Wildlife Mitigation Plan is to address effects of development activities proposed during seasonal closures (e.g., the winter), while the Agency Mitigation Plan emphasizes the importance of offsetting, to the extent reasonable, the effects of full field development in its entirety. Under these plans, provisions for the creation of wet meadows/summer range enhancement are not intended to mitigate for the loss of crucial winter habitat. Rather, loss of winter habitat would be offset or partially mitigated by measures such as 4:1 acre ratio habitat improvement projects, road realignments in sage-grouse core winter use areas, and pinyon-juniper treatments.  |
| 276       | Wildlife        | If the BLM approves vegetation treatments, it should follow up with careful monitoring, especially regarding sage-grouse response to these treatments.   | See response to comment #180. As indicated in the response to comment #180, annual monitoring and planning is a critical component of the Agency Wildlife Mitigation Plan. Furthermore the Agency Wildlife Mitigation Plan includes a requirement that the operators contribute to UDWR for monitoring greater sage- grouse, whether through continued telemetry study or other, more aggressive means of monitoring, if necessary, including experimental designs.   |
| 277       | Wildlife        | Several of the proposed mitigation measures may not actually reduce the risk to imperiled species.   | The comment does not include specificity (i.e., which mitigation measures and which imperiled species) for the BLM to provide a detailed response. However, both the USFWS and UDWR are Cooperating Agencies on this project, and both agencies have provided expertise, input, and suggestions on how to avoid, minimize, and mitigate potential effects of the proposed natural gas development project on both common and special status species.  |
| 278       | Wildlife        | The public should be able to see and comment on the BA and BO during the NEPA process. It is difficult for the public to fully participate in the NEPA process when the USFWS' input is not disclosed.   | Informal Section 7 Consultation has been ongoing between the USFWS and BLM throughout the life of this EIS. Formal Section 7 Consultation between the USFWS and BLM was initiated in June 2010. A separate BA is not being prepared for this project. Instead, based an agreement between the BLM and USFWS, the information on threatened and endangered species within the EIS is being used as the BA, and as such will be used by the USFWS to prepare their BO. As is standard practice during formal Section 7 Consultation associated with a NEPA document, the BO will be included in the ROD for this project. However, as the USFWS is a Cooperating Agency for this project, their input has been and will continue to be included throughout the NEPA process. Most importantly, the USFWS has provided assistance in developing the alternatives considered in this EIS, and in developing mitigation measures designed to eliminate or reduce impacts on special status plant and wildlife species. Thus, the USFWS' input is reflected in the EIS. |
| 279       | Wildlife        | The BLM must consider the cumulative effects of other approved and proposed projects when determining whether its actions will lead to a trend toward ESA listing.   | Refer to response to comment #188. Cumulative impacts on special status species, which include analysis of other approved and proposed projects, are described in Section 5.10 of the EIS.  |
| 280       | Wildlife        | For several special status species, the BLM acknowledges that the project will reduce recovery potential, but claims that project approval will not lead to a trend toward ESA listing. This does not comply with the BLM's duties under its own sensitive species manual.                         | The impact analyses in Sections 4.10 and 5.10 of the EIS do not state whether or not potential effects of the alternatives would lead to a reduction in recovery potential. As decisions about increases or decreases in recovery potential of listed species is a regional or species-wide scope issue, this type of determination would be appropriately made by the USFWS; this type of determination should not be made by the BLM for a project-specific analysis.   |

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| 281       | Wildlife        | The DEIS does not consider how existing and proposed disturbances outside the project area may result in indirect and cumulative effects that do lead to a listing trend. Many of these species are at risk where no single project dictates the fate of the species, but where the BLM's overall approach to management does.   | The effects determinations for listed species in Section 4.10 were appropriately based on impacts limited to the direct and indirect effects of the alternatives within the WTP Project Area. These analyses satisfy the requirements for impact analysis for Federally-listed species under both NEPA and the ESA. The cumulative impact assessments in Section 5.10 consider the cumulative impacts of relevant past, present, and reasonably foreseeable actions on special status species within their CIAAs.   |
| 282       | Wildlife        | The BLM should not approve projects that result in adverse modification of critical habitat.   | Section 7(a) of the ESA of 1973, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any has been designated. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to adversely affect or jeopardize the continued existence of a Federally-listed species, or result in the adverse modification or destruction of its critical habitat. Regulations that implement this interagency cooperation provision of the ESA are codified at 50 CFR 402. If a Federal action " <i>may affect, is likely to adversely affect</i> " a Federally-listed species or its designated critical habitat, the responsible Federal agency must enter into formal consultation with the USFWS. The BLM is in full compliance with the above-described requirements under the ESA. Coordination and informal consultation with the USFWS has been ongoing throughout the EIS process. In addition, as the USFWS is a Cooperating Agency for this project, their input has been and will continue to be included throughout the NEPA process. The USFWS has provided assistance in developing the alternatives considered in this EIS, and in developing mitigation measures designed to eliminate or reduce potential impacts to special status plant and wildlife species. |
| 283       | Wildlife        | The BLM should not approve projects which reduce the recovery potential for listed species.  | See response to comment #282. The numerous alternative design features, BMPs, special protective measures, and mitigation measures within the EIS would be used to protect special status species, and mitigate impacts to species listed under the ESA.  |
| 284       | Wildlife        | Mexican spotted owls require PACs. It is understood that a pair of owls has been nesting in Flat Canyon, adjacent to the project area. The BLM must act in accordance with the Mexican spotted owl recovery plan by designating PACs for these areas, and protecting them against disturbance. It may be that portions of a PAC for owls in Flat Canyon would fall within this project area boundary; therefore, the BLM should designate this PAC and manage it for owl conservation. | The need for a PAC for MSO nesting in Flat Canyon, which is located south of the WTP Project Area boundary, is independent of the WTP proposal. A PAC could be established regardless of the decision on the project. As part of the WTP project, the BLM could protect MSO by including numerous project design features, applicant-committed environmental protection measures, environmental protection measures, and mitigation measures specifically developed to avoid, reduce, or offset potential effects to MSO and their designated critical habitat. The MSO protection measures are described in Table 2.2-6 and Table 2.6-8.   |
| 285       | Wildlife        | The BLM has not used the best available science in assessing impacts to sage-grouse. In several places the BLM cites older, outdated literature, especially in the sage- grouse discussion. The BLM must consider this new information and reassess impacts to sage-grouse, and also redesign mitigations to be effective.   | The wildlife impact analyses and mitigation in the EIS were developed by the BLM in coordination with the UDWR, based on current science and knowledge about the potential effects of oil and gas development on the species.   |

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| 286       | Wildlife        | Making a " <i>will likely to adversely affect</i> " finding for the four Colorado River fish, but not their critical habitat, is arbitrary and capricious. The DEIS determines that the project will deplete and degrade the Green River where critical habitat has been designated, but then makes an " <i>is not likely to adversely affect</i> " finding for impacts to critical habitat for the endangered Colorado River fish. Adverse modification of critical habitat should be an easier standard to meet, and the courts have supported this interpretation. | Based on recommendations by the USFWS (see comment #485), effects determinations for critical habitat for the Colorado River endangered fish species in Section 4.10 have been modified to " <i>may affect, likely to adversely affect.</i> "   |
| 287       | Vegetation      | Imperiled plants will be further placed at risk by ozone resulting from approval of this project. The impacts of ozone on special status plants should be considered, analyzed, and discussed.  | The comment does not provide any specific guidance or suggestions for the BLM to utilize, or new information to be considered. It is logical to assume that ground level ozone could potentially affect vegetation. The mechanism of ozone impacts on vegetation is poorly understood, particularly without extensive monitoring data on actual ozone levels and controlled studies on impacts to plant populations. While there are a few government studies available analyzing potential effects of ozone exposure on vegetation, these studies focus on large geographical regions, included long-term monitoring (i.e., over 5 years), and largely report speculative results or indicate the need for more study before conclusive results can be made. |
| 288       | Vegetation      | Dust deposition is a serious concern for many resources, including Uinta Basin hookless cactus. Dust deposition is mentioned in the DEIS as a concern for Graham's penstemon, but not for the Uinta Basin hookless cactus. This threat should be included for all special status plants.  | The impact analyses in Section 4.10 for the Uinta Basin hookless cactus have been modified to specifically acknowledge the potential effects of dust deposition on this Federally threatened species.   |
| 289       | Vegetation      | The BLM must consider the impacts of the project on pollinators. The BLM's response to USFWS over the proposed ESA protection for Graham's penstemon in 2006 discussed the effects of oil and gas drilling on pollinators and the plants they service. This should be considered here as well.  | The impact analyses for the Uinta Basin hookless cactus and Graham's penstemon in Section 4.10 have been modified to include information on potential impacts to pollinators and subsequent effects of pollinator loss on these special status species.   |
| 290       | Vegetation      | BLM should require actual avoidance of sensitive resources. The DEIS does not contain a specific requirement to avoid occupied or potential habitat for sensitive resources like Uinta Basin hookless cactus or Graham's penstemon. The BLM should ensure that occupied and potential habitats as well as buffers are protected from surface disturbance. The BLM should require relocation of surface disturbances outside of such sensitive areas.  | Alternatives C, D, and E all include a commitment to implement the conservation measures that were jointly developed by the BLM and USFWS for the Uinta Basin hookless cactus and Graham's beardtongue (see Table 2.6.-8). These conservation measures include salient and effective actions for eliminating and/or reducing direct and indirect impacts to these species.  |



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| 291       | Wildlife        | The BLM should adhere to the USFWS' guidelines for conserving raptors. The USFWS recently drafted guidelines for avoiding disturbance in raptor habitat, and the BLM should ensure that mitigation measures adhere to the USFWS' recommendations.  | Raptor protective measures in Table 2.6-8 have been modified to include adherence to protective measures outlined in the USFWS' Guidelines for Raptor Protection From Human and Land Use Disturbances.  |
| 292       | Wildlife        | Protecting large areas of land from human interference has been documented in many places in the scientific community as being a major means of increasing biomass and preventing the loss of biodiversity. The loss of biodiversity is of special importance to special status species, as their already sensitive nature prevents them from being as tolerant to changes in their habitat. The DEIS does not take a hard look at this issue.   | <p>Biodiversity, a contraction of the phrase "biological diversity," is a complex topic, covering many aspects of biological variation. In popular usage, the word biodiversity is often used to describe all the species living in a particular area. However, most scientists use a broader definition of biodiversity, designed to include not only living organisms and their complex interactions, but also interactions with the abiotic aspects of their environment. Definitions emphasizing one aspect or another of this biological variation can be found throughout peer-reviewed and gray literature. For the purposes of this EIS, biodiversity is defined as: "the full range of variety and variability within and among living organisms and the ecological complexes in which they occur, and encompasses ecosystem or community diversity, species diversity, and genetic diversity (Jensen et. al. 1990)*." The impact analyses within the EIS (including those for special status species) inherently focus on potential impacts to or loss of biodiversity by providing a comprehensive description of potential direct effects, indirect effects, ecological interactions, and cumulative effects on the biota and abiota (i.e., abiotic habitats and resources, biotic habitats, species, populations, behaviors, physiology, etc.) known to occur and/or with the potential to occur in the WTP Project Area. Alternatives C, D, and E include measures to protect biodiversity because the measures are designed to protect many species and habitats.</p> <p>*Jensen, D.B., M. Torn, and J. Harte. 1990. In Our Own Hands: A Strategy for Conserving Biological Diversity in California.</p> |
| 293       | Wildlife        | A disturbance to any of the sage-grouse's habitats can have a lasting effect on these species, and the DEIS simply claiming that noise and other disturbance will have a short-term effect and thus are negligible in importance does not take into account the real threat this type of development poses. Sage grouse are a good indicator species for sagebrush ecosystem viability, "Given that the health of sagebrush-dominated ecosystems is paramount to maintaining viable populations of many species of wildlife, the reaction of greater sage- grouse populations to habitat alterations caused by energy development could imply reactions of a wide array of wildlife species." An effect on sage-grouse is also an effect on any species that relies on sagebrush-grassland habitat, and cannot be ignored. | As previously described in the response to comment #268, the analyses in the EIS do not attempt to underestimate the potential effects of the project on sage-grouse populations or habitats, and in no way does the EIS suggest that potential effects to sage-grouse would be negligible. For example, the sage-grouse impact analysis in Section 4.10.2.2 describes potential direct and indirect impacts (some of which could be short-term in nature, some long-term in nature) of the Proposed Action on individual sage-grouse, sage-grouse populations, and sage-grouse habitats. Potential impacts to other sagebrush obligate or dependent species are also clearly described within the alternative-specific impact analyses.  |

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| 294       | Wildlife        | The DEIS names the loss of crucial winter habitat for the sage-grouse as one of the irreversible and irretrievable effects of the proposed development (DEIS at 4-169). The sage-grouse relies on sagebrush for almost all of its dietary needs during winter, and as a result the loss of these areas during critical periods such as winter can be the difference in the survival of individuals, and cumulatively the species. Therefore, alternatives proposed in the DEIS have consequences that are not short term and pose direct threats to the mortality and survival of the sage-grouse as a species. | Definitions of irreversible and irretrievable resources were first introduced in Section 4.1 of the EIS: “An irreversible commitment of resources generally refers to the use, destruction, and/or removal of nonrenewable resources (e.g., natural gas resources and cultural resources). However, actions are also considered irreversible if a resource is affected to the point that renewal can only occur over a long period of time or at a great monetary expense (e.g., wetlands). An irretrievable commitment of resources means loss of production or use of resources. It represents opportunities forgone for the period of time that a resource cannot be used. Irretrievable commitment of resources can also refer to a change in the environment during the LOP that can be reversed at the end of the project.” As noted in many DEIS comments, the use of the two terms was incorrectly applied under many resource analyses. The FEIS has been corrected in accordance with the definitions provided above. The DEIS correctly applied the loss of sage-grouse winter habitat as an irretrievable effect. In terms of this irretrievable commitment of resources, the EIS includes numerous mitigation measures designed by the BLM, in cooperation with the UDWR, to minimize or offset the direct, indirect, and cumulative effects of the project on sage-grouse and sage-grouse habitats, such that the project would not result in a direct threat to the survival of the sage-grouse as a species. |
| 296       | Vegetation      | The hope that limited erosion will help to preserve the cactus is misplaced because of BLM’s observations in the area detailing the lack of reclamation success.  | See responses to comments #226.<br><br>The effects determinations under the Chapter 4 impact analyses for Uinta Basin hookless cactus (see Sections 4.10.2.1 and 4.10.3.1) have been changed to “may affect, likely to adversely affect” under the Proposed Action and No Action Alternative. It is important to understand that the BLM and USFWS’ determination that the project “ <i>may affect, is not likely to adversely affect</i> ” the Uinta Basin hookless cactus under Alternatives C, D, and E is not solely based on the measures designed to reduce erosion. While erosion prevention measures would aid in reducing potential impacts to Uinta Basin hookless cactus, Alternatives C, D, and E all include a commitment to implement the conservation measures that were jointly developed by the BLM and USFWS for Uinta Basin hookless cactus (see Table 2.6.-8). These conservation measures include salient and effective actions for eliminating and/or reducing direct and indirect impacts to this species. Therefore, as supported by the USFWS, the effects determination under Alternative C, D, and E for the Uinta Basin hookless cactus is “ <i>may affect, not likely to adversely affect.</i> ”  |
| 297a      | Vegetation      | Approval of one of the development alternatives analyzed in the DEIS will likely adversely affect the Uinta Basin hookless cactus as it will face habitat fragmentation and increased risk of collection (see DEIS at 4-163 to -164, 4-172, 4-177 to -178, 4-184 to -185, 4-190 to -191). Although the DEIS acknowledges risks faced by this cactus, it down plays such risk by assuming that mitigation measures will be effective at protecting the cactus.   | See response to comment #296. The BLM has changed the effects determination to recognize that implementation of the Proposed Action and No Action Alternative would adversely affect the cactus. Under Alternatives C, D, and E, operators would be required to adhere to conservation measures developed jointly by the BLM and USFWS. While these conservation measures do not directly mitigate for impacts related to increased collection, Alternatives C, D, and E do contain access restrictions (i.e., road closures through gating), which would limit public access in areas where cactus may occur.   |
| 297b      | Vegetation      | The improper disturbance estimates resulting from over-optimistic interim reclamation calculations lead to an underestimation of the true impacts of this project on vegetation.  | See response to comment #226.  |

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| 298       | Visual Resources                         | The development proposals analyzed in the DEIS would violate the current visual resource management classifications in the relevant land use plans. As such, the BLM cannot approve these proposals.   | <p>The DEIS acknowledged that should the BLM provide for full field development of natural gas resources in the WTP Project Area under the revised foreseeable development scenario for the Proposed Action, an MFP amendment would have been required in order to change visual resource management classifications for certain areas within the WTP Project Area. Areas where development would have prevented the BLM from meeting VRM class objectives were discussed in detail in the alternative-specific analyses contained in Section 4.16.</p> <p>However, since completion of the DEIS the Price Field Office Approved RMP has been completed (October 2008). Implementation of the Agency Preferred Alternative would be in conformance with VRM Class Objectives established for the WTP Project Area.</p>                                |
| 299       | Special Designations                     | The DEIS neglects to mention, let alone analyze, that the pending Price RMP includes an alternative that would manage for the protection of the Desolation and Jack Canyon WCAs.   | <p>See response to comment #52.</p> <p>Lands included in the WTP Project Area are within the 204,643-acre Desolation Canyon and 1,465-acre Jack Canyon non-WSA areas with wilderness characteristics identified during the recent Price Field Office land use planning effort. Within the range of alternatives for the planning effort, these lands were considered and thoroughly analyzed for the protection, preservation, and maintenance of those wilderness characteristics as well as for the impacts that could occur if other resource developments and uses were allowed. The BLM did not carry either the Desolation Canyon or Jack Canyon areas forward for protection of wilderness characteristics, and chose to provide opportunities for other resource development and uses (Approved RMP, page 93, 2008).</p>                      |
| 300       | NEPA/ Special Designations               | The DEIS may not approve new leasing in these areas while this land use plan is pending, as it would effectively limit options in that plan.   | As discussed in Section 1.4 of the EIS, "While this EIS provides for analysis of development on unleased lands within the WTP Project Area, the ROD for this will not include a decision to lease any specific parcel.  |
| 301       | NEPA/ Special Designations               | The DEIS has failed to take a hard look at the obligations of the BLM to manage the Desolation Canyon and Jack Canyon WSAs according to the IMP. The IMP does not grant BBC a blank slate to pursue development in WSAs where it holds leases. In fact, under the IMP the BLM may not permit BBC to build new roads or well pad locations in the WSAs. | IMP H-8550-1 Interim Management Policy for Lands Under Wilderness specifically states: "Those grazing, mining, and mineral leasing uses that existed on October 21, 1976 (the date that FLPMA was approved), may continue in the same manner and degree as on that date, even if this would impair wilderness suitability." In addition, within the range of alternatives considered is the Conservation Alternative, which prohibits surface disturbance within the WSAs, and the Agency Preferred Alternative, which reduces surface disturbance through the use of increased directional drilling. As discussed in Section 2.6.13, the EIS also contains numerous mitigation measures for construction in WSAs that would serve to minimize impacts to wilderness values. Therefore, the EIS addresses BLM's IMP management requirements for WSAs. |
| 302       | NEPA/ Alternatives/ Special Designations | The BLM has failed to take a hard look at the leases by which BBC claims to have a right to develop inside the WSAs. The DEIS contains no information whatsoever regarding the nature of the leases, the date on which they were issued, or whether each lease is pre- or post- FLPMA, etc.  | A table has been included in Section 3.17.2 of the EIS disclosing all leases within the WSAs.   |

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| 303       | NEPA/ Alternatives/ Special Designations | The BLM failed to take a hard look at the suspension of any post-FLPMA leases found within either of the WSAs. A suspension is not the same as Alternative B or D. Simply ignoring a permitting decision now does not avoid the reality that BBC may return to the BLM immediately and seek authorization for lease development within the WSAs. A suspension, on the other hand, would foreclose an immediate application by BBC to develop these leases until Congress had a chance to consider whether or not Desolation Canyon and Jack Canyon WSAs should be designated as Federally-protected wilderness. | See response to comment #217. In addition it should be noted that there are no post FLPMA leases within the WSAs. A list of leases within the relevant WSAs has been included in Section 3.17.2. In addition, although the impacts would not be identical, they would be substantially similar as discussed in Section 2.8.2.   |
| 304       | NEPA/ Alternatives/ Special Designations | The BLM failed to take a hard look at the potential for a lease buy back or exchange in the WSAs and WCAs.  | See response to comment #217.<br><br>The issues of lease buy back or exchange are addressed in Section 2.8.1.   |
| 305       | Special Designations                     | The DEIS fails to consider the impacts of the proposed project to naturalness outside of the immediate physical boundaries of the proposed well pad and road upgrades after drilling has finished. This proposed project will affect visitor perceptions of naturalness and opportunities for solitude in an area much greater than acreage figures presented in the DEIS.  | While the DEIS does define impacts to naturalness as the area directly impacted by development, the analysis of opportunities for solitude and primitive and unconfined recreation includes a fragmentation analysis that considers the impacts that would extend beyond the immediate physical boundaries and/or areas of surface disturbance. See EIS Section 4.17. |
| 306       | Special Designations                     | The DEIS does not attempt to quantify the impact or the extent of the impact to perceived naturalness and solitude beyond the acres of terrain denuded of vegetation and after the drilling operations have ceased (while production continues). Thus, the proposed project has the potential to impact wilderness character to an extent much greater than is discussed in the DEIS.   | See response to comment #305.   |
| 307       | Special Designations                     | The DEIS does not analyze the impacts to supplemental values of the WCAs.   | Impacts to the supplemental values of the Desolation and Jack Canyon WCAs have been added to Section 4.17, consistent with the discussion included under the analysis of the WSAs.  |
| 308       | Special Designations                     | None of the alternatives in the DEIS would ultimately protect the wilderness values of the WCAs and WSAs.   | Under Alternative D of the EIS, the BLM would not lease unleased lands with wilderness characteristics and development would not be permitted within the WSAs.  |
| 309       | Noise                                    | SUWA expressly incorporates Mr. Richard A. Kolano's comments by reference.  | See responses to comments #811-819.   |

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| 310       | Recreation/ Special Designations/ Noise | The DEIS has failed to provide any background information on noise levels in the project area. The establishment of such a baseline is “essential in order to determine the acoustical impact of any proposed development ... which could violate the solitude.”  | See response to comment #313.   |
| 311a      | Recreation/ Special Designations/ Noise | The DEIS erroneously adopts a 55 dBA health and welfare based standard to determine whether or not the proposed activities will have a significant effect on noise in the project area (see DEIS at 4-375). However, such a standard is inappropriate for analyzing the potential invasion of a quiet, natural area from the industrial noises of gas development on the WTP.   | See response to comment #313.   |
| 311b      | Dust Study                              | URARA concurs with the DEIS that additional efforts are needed to identify, develop, and implement acceptable dust-abatement treatments, that additional research needs to be initiated to develop treatments for removal of existing dust, that analytical systems should be implemented to quantitatively examine the success of dust-abatement treatments, and that all impacted rock art panels should be evaluated to determine the extent of the dust accumulation problem, and thereby devise dust-abatement strategies. | See responses to comments #651 and #971.  |
| 312       | Noise/ Recreation                       | The DEIS has no discussion of the fact that in order for intruding sounds to be inaudible they generally must be anywhere from 5-10 dBA less than the indigenous baseline of the area. This means that noises generated by gas development and operations are likely to “stick out” even more than the DEIS’s simple analysis would suggest.  | <p>Noise increases of up to 5 dBA are generally not considered noticeable or significant. The comment does not provide any reference or explanation. The following discussion is contained in the EPA’s 1974 Document Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974. After a great deal of analysis and deliberation, EPA levels were identified to protect public health and welfare for a large number of situations. These levels are subject to the definitions and qualifications contained in the Foreword. In order to identify these levels, a number of considerations and hypotheses were necessary, which are listed below with reference to the appropriate appendices where they are discussed in detail.</p> <ol style="list-style-type: none"> <li>1. In order to describe the effects of environmental noise in a simple, uniform, and appropriate way, the best descriptors are the long-term equivalent A-weighted sound level (Leq) and a variation with a nighttime weighting, the day-night sound level (Ldn).</li> <li>2. To protect against hearing impairment. <ol style="list-style-type: none"> <li>a. The human ear, when damaged by noise, is typically affected first at the audiometric frequency of 4000 Hz.</li> <li>b. Changes in hearing level of less than 5 dB are generally not considered noticeable or significant.</li> </ol> </li> </ol> |

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| 313       | Recreation/ Noise | Ambient sound levels have been measured in national parks in Utah that present extremely low readings. The noise levels would be indicative of the background levels that the BLM might observe if it conducted an accurate study of ambient noise in the WTP.   | In the absence of site-specific baseline noise data, the BLM used the literature provided by SUWA to assign appropriate background noise levels to a variety of locations within WTP Project Area.<br><br>The DEIS in Section 3.18.3.2 indicate background noise is typically assumed to be equivalent to EPA's "Farm in Valley" level of 32 dBA during night and 39 dBA during the day. A review of the literature provided by SUWA indicates that the existing background levels in WSAs and WCAs would probably be lower. The noise levels reported for Glen Canyon National Recreation Area (National Park Service Long-Term Ambient Sound Monitoring in National Parks, Sound and Vibration February 1992) indicated average hourly noise levels varying from 25 dBA at 7:00 AM, and then steadily increasing to about 45 dBA by noon, and then slowly decreasing 30 dBA by 6:00 PM, and lowering to 25 dBA through the rest of the evening and night. The higher noise levels during the day are attributed mostly to higher wind speeds during the day. Based on this report, it can be assumed that a night noise level in WSAs and WCAs would be 25 dBA, and the daytime level would be 30 to 45 dBA, mostly depending on wind conditions. In areas in the WTP Project Area not included as WSAs and WCAs, the anticipated background level of 32 to 39 dBA is an estimate. However, background noise would be higher along major transportation corridors such as Nine-Mile Canyon Road. Section 3.18.3.2 in the FEIS represents the range of noise background levels that can be expected within the WTP Project Area. |
| 314       | Recreation/ Noise | Since decibels are measured on a logarithmic scale, a doubling of sound energy is only equivalent to 3 dBA. Thus, even if ambient background noise in the West Tavaputs were measured at a very high 35 dBA, a health-based standard of 55 dBA would represent a 100- fold increase in sound energy. For this reason the BLM's 55 dBA health and welfare-based standard is inappropriate for determining the true impacts of this project on the ambient sound levels of the project area.                             | The dBA scale relates noise as perceived by the human ear. Table 3.18-1 lists the "loudness" of various known and common noise sources when compared to the noise level of two people having a conversation 5- feet apart. An increase of 10 dBA, rather than 3 dBA, represents a doubling of the effect to the human ear.  |
| 315       | Recreation/ Noise | The Desolation and Gray Canyon River Management Plan specifically forbids the authorization of drilling projects that are located within sight or sound of the Green River. The BLM has failed to take any background ambient noise level data on the Green River area and from the Desolation Canyon NHL. Without the background ambient noise level and accurate modeling of potential noise sources, the BLM cannot conclude that the alternatives analyzed in the DEIS will comply with this management directive. | See responses to comments #139 and #313.  |
| 316       | Socioeconomics    | SUWA expressly incorporates Dr. Michelle Haefele's comments by reference.  | See responses to comments #824-#833 and #1113-#1141.  |

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| Comment # | Topic/ Resource              | Public Comment  | BLM Response   |
|-----------|------------------------------|---|--|
| 317       | NEPA/ Alternatives           | The DEIS contains numerous conflicts with the relevant land use plans: the Price River MFP and the Diamond Mountain Resource Management Plan. The DEIS conflicts with their directives for the management of ACECs, visual resources, leasing, recreational management, and cultural resources. The DEIS, either ignores these conflicts or fails to take a hard look, at their nature and the obligations of the BLM to manage according to the current land use plans. The BLM has a duty to not only disclose them, but to eliminate them. | <p>As discussed in Section 1.2 of the DEIS, the BLM's land use planning regulations at 43 CFR 1610.5-5 explicitly state "An amendment shall be initiated by the need to consider... a Proposed Action that may result in a change in the scope of resource uses, or a change in the terms, conditions, and decision of the approved plan."</p> <p>As discussed in Section 1.5.1, of the DEIS should the BLM provide for full field development of natural gas resources in the WTP Project Area, a land use plan amendment could be required for decisions on certain resources. Potential land use conflicts are discussed in the appropriate resource analyses throughout the EIS.</p> <p>However, since completion of the DEIS the BLM has completed its land use planning effort. Conformance with the Price Field Office Approved RMP (October 2008) is discussed in Chapter 1.</p> |
| 318       | Alternatives                 | The BLM should consider new alternatives that would eliminate conflicts with the land use plans, would refuse any new leasing in WCAs, that would eliminate any new surface impacts in WSAs and WCAs, that would find an alternative transportation route away from Nine Mile Canyon, that would avoid negatively impacting proposed and existing ACECs, and that would greatly reduce surface impacts from this proposed project.  | See response to comment #217.  |
| 319       | Cumulative Impacts           | The DEIS fails to quantify or identify preexisting and ongoing impacts. Cumulative impacts analysis clearly requires that past and present actions be included in the analysis as well. The DEIS should include analysis and quantification of past and present impacts as well as cumulative future impacts. Specifically, it should also analyze the impacts from off- road vehicle use in the area of the project.   | See responses to comments #966 and #320.   |
| 320       | Cumulative Impacts           | The BLM omitted discussion of past, present, and future off-road vehicle use in the area. This error prevents the BLM from being able to accurately evaluate long-term cumulative impacts.  | Additional information on OHV use has been incorporated into the cumulative impact analysis. However, because there is no visitor use data available, cumulative impacts associated with OHV use are examined on a qualitative basis.  |
| 321       | Cumulative Impacts/ Cultural | The DEIS fails to consider cumulative impacts to cultural resources as discussed in the comments of Mr. Spangler.   | See response to comment #866.  |
| 322       | Cumulative Impacts/ Wildlife | The DEIS does not discuss the potential cumulative impacts to threatened, endangered, and sensitive species, along with other wildlife, from the erosion and run-off that will result from this project and others, such as increased total suspended solids and turbidity in the Green River or Nine Mile Creek.   | The EIS discloses the potential direct and indirect effects of erosion and runoff on special status wildlife and fishery species. For example, see the discussions on Colorado River endangered fish species in Section 4.10.2.1. Section 5.10 of the EIS has been modified to include information on the potential cumulative effects to special status wildlife and fishery species resulting from erosion and runoff.   |

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| Comment # | Topic/ Resource                          | Public Comment  | BLM Response  |
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| 323       | Cumulative Impacts                       | The DEIS fails to discuss the cumulative impacts of lack of interim reclamation success in the region on a variety of resources: water, air quality, dust, vegetation, etc.   | As discussed in Appendix C, "Based on the climatic conditions of the WTP Project Area, it was determined that successful reclamation could be reasonably expected to occur within a period of 5 years." Under Alternatives C, D, and E, the BLM has established surface-disturbance thresholds to assure that successful interim reclamation is achieved (Appendix C – Surface Disturbance Thresholds). Because it was assumed that interim reclamation would be successful, implementation of these alternatives would not contribute to the lack of interim reclamation success in the CIAA for these individual resources. |
| 324       | Cumulative Impacts/ Air Quality          | The DEIS fails to consider the full cumulative impacts of this project and others on air quality. For example, the cumulative impacts analysis for air quality show that the effects of this project and others on the Ouray National Wildlife Refuge, combined with the emissions from the recently approved Greater Deadman Bench project, will certainly lead to exceedances of NAAQS and PSD increments under the CAA.          | Section 5.3 and Appendix J include thorough analyses of cumulative impacts on air quality. Exceedances of NAAQS or PSD Class I increments at Class I areas are not anticipated as a result of Proposed Action or alternatives.  |
| 325       | Cumulative Impacts/ Special Designations | The DEIS fails to analyze the cumulative impacts that will result to WSAs and WCAs from greater off- road vehicle access in the area facilitated by the proposed and current oil and gas developments in the region, and failed to analyze cumulative impacts from off-road vehicles to noise.  | An analysis of increased OHV use has been added to the cumulative impact analysis for WSAs and WCAs (see Section 5.17).   |
| 326       | NEPA/ Alternatives                       | The proposed project comes in the midst of significant planning processes, including the preparation of the Price Field Office's RMP and its consideration of ACEC nominations in the area. A decision on the proposed project should wait until after these ongoing planning efforts are complete or fully consider, and adopt a directional drilling alternative that would eliminate impacts to the proposed ACECs and the WCAs. | See response to comment #52.  |



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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 327       | NEPA            | The development of alternatives A, C, D, and E allow intensive well development in the portions of the project area that include the proposed Nine Mile Canyon ACEC and Desolation Canyon ACEC, as well as the Desolation Canyon WCA and the Jack Canyon WCA. This drilling will cause direct impacts such as increased traffic, increased noise, visual intrusions, degradation or destruction of natural and cultural resources, preclusion of recreational activities, and the like. In short, the proposed activity will lead to a variety of impacts that will effectively foreclose certain future land management options. This is not allowed when the BLM is in the midst of a regional planning process.  | See response to comment #52.   |
| 328       | NEPA/ General   | The BLM has failed to include information relevant to reasonably foreseeable significant adverse effects that is essential to a reasoned choice among alternatives. NEPA regulations require that the BLM include such information when the costs of doing so are not exorbitant. The BLM has failed to include such vital information, or explain why it cannot be obtained, for background ozone and PM <sub>2.5</sub> levels; for up-to-date and accurate water quality information for Nine Mile Creek, Jack Creek, and Minnie Maude Creek; and for an ambient noise levels in the project area, along with calculations of the likely noise impacts from development. BLM's failure to prepare this missing information is particularly egregious because this project has been under preparation for years. | The EIS includes the best available information, be it from a publicly available data source or site-specific inventories conducted for this project. In many instances, additional data were collected. For example, during the EIS process, a full year of traffic data was collected and multiple engineering reports were completed to evaluate the need for road improvements. In addition, the operators agreed to fund a Dust Study, which evaluates the impacts of dust and dust suppressants on rock art, and fund a preliminary cultural assessment of the Horse Bench area. Vegetation data provided in Section 3.8 is based on GAP data, which represent one of the most comprehensive sources of vegetation cover data for the State of Utah and the WTP Project Area. Big game population and habitat data within Section 3.9 of the EIS are based on data provided by the UDWR. Mexican spotted owl information in Section 3.10 is based on USFWS-accepted modeling, subsequent ground-truthing habitat surveys, and ongoing MSO surveys in the WTP Project Area conducted according to USFWS guidelines. In another example, Appendix O includes a Class I data review for the WTP Project Area (discussed in Section 3.12), which revealed that there have been nearly 1,000 cultural sites identified in this region to date. As noted in several places within the EIS (e.g., within Tables 2.2-6, 2.6-7, 2.6-8, special protective measures under Alternatives C and E, and within the Operators' and Agency Wildlife Mitigation Plans) site-specific inventories and surveys would be required for numerous resources (e.g., annual raptor nest inventories, surveys for Uinta Basin hookless cactus and Graham's penstemon, Class III cultural resource inventories, paleontological surveys in Condition I areas, etc.) prior to project-related disturbance. If resources of concern are documented during these ongoing inventories, the EIS also lays out careful plans for how potential effects would be avoided (e.g., re-location of proposed disturbance sites, seasonal closures, NSO, etc.). Additional water flow and quality data for Nine Mile Creek that has been collected during the EIS process has been included in the EIS. In addition, a formal Cultural Resource Monitoring Plan has been added to the FEIS as part of a Programmatic Agreement, and a Water Quality Monitoring Plan has been added as Appendix Q. Background ozone and PM <sub>2.5</sub> levels were obtained through the proper permitting authority. Obtaining additional data was not advocated as part of the air quality analysis protocol accepted by either the State of Utah or EPA at the beginning of the project. However, based on public comments on the DEIS, the FEIS has been modified to include analysis of ozone contributions and impacts. Background noise levels from other comparable public lands areas have been used as a baseline for the noise analysis in the absence of site-specific information. |

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| Comment # | Topic/ Resource    | Public Comment   | BLM Response  |
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| 329       | NEPA/ Alternatives | If BBC has pre-FLPMA leases already in production, the BLM should require BBC to drill directionally from existing pads. There are pre-existing well pads in both the Jack Canyon and Desolation Canyon WSAs (see DEIS at Figure 2.3-1). The BLM must follow the non- impairment mandate unless it can show that doing so would unreasonably interfere with lease rights, and even then, it cannot permit undue/unnecessary degradation. Because BBC has already shown itself willing and able to drill directionally within close proximity to the WSAs, an alternative that would only allow directional drilling from existing pads within the WSAs must be fully considered. | <p>An alternative that would only allow BBC to directionally drill from existing well pads in the WSAs would unreasonably interfere with BBC's ability to fully develop their mineral rights. This is shown by Phase I and Phase II of the directional drilling report, which show the technical feasibility limits of directional drilling in the WTP Project Area.</p> <p>As discussed in Section 2.6.3, the directional drilling report indicated that current technology provides for a maximum horizontal offset of 3,000 feet. The data suggests that is possible to reach most of the proposed bottom holes that occur below canyon bottoms and in the WSAs by directional drilling from outside these areas. Recommendations from the directional drilling report have been incorporated into the Agency Preferred Alternative, such that many of the proposed wells that were illustrated under the Proposed Action would be drilled under the Agency Preferred Alternative from areas outside the canyon bottoms and WSAs.</p> <p>Using the maximum horizontal offset of 3,000 feet, it is estimated that BBC would be required to construct approximately 17 well pads within the WSAs (many located along the existing Cedar Ridge Road) in order to fully access reserves within the Peter's Point Unit.</p> |
| 330       | NEPA               | If directional wells cannot be drilled from existing well pads in the WSA, BLM can still reasonably deny new wells because it will not be denying company enjoyment of its lease.  | Within the range of alternatives considered in the EIS is the Conservation Alternative, which would deny new well pads in the WSAs.   |
| 331       | NEPA               | If BBC has post-FLPMA leases in WSAs, which the DEIS does not disclose and must, then the BLM must manage according to the non-impairment mandate. This would mean considering an alternative relying on directional drilling from outside of the WSA boundaries completely.   | There are post-FLPMA leases within the WSAs. A table showing all leases and lease dates has been added to Section 3.17. In addition, Alternative D relies on directional drilling from outside the WSA boundaries.  |
| 332       | NEPA               | No new access roads may be built, and no new pipelines may be installed because they would violate the IMP.  | See response to comment #301.   |
| 333       | NEPA               | Pre-FLPMA lease rights are not absolute, as they are portrayed in the DEIS. The BLM is still obligated to follow the non-impairment mandate of the IMP because doing so will not unreasonably limit development on pre-FLPMA leases. For this reason, the agency may not approve Alternatives A, C, or E.  | <p>As discussed in Section 2.6.1.13 of the EIS, the IMP and Guidelines for Lands Under Wilderness Review (H-8550-1) recognizes valid and existing rights with a provision that efforts be made to minimize unnecessary or undue degradation to wilderness values. Although mitigation measures for construction in WSAs are not explicitly disclosed, numerous mitigation measures for various resource values contained within Tables 2.6-7 and 2.6-8 would serve to minimize impacts within these sensitive resource areas.</p> <p>Also see response to comment #301.</p>   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
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| 334       | NEPA            | The BLM is obligated, by FLPMA, to comply with the environmental standards established in the CAA and the CWA. This means that the BLM may not permit development that will result in exceedances of NAAQS, PSD increments, or air quality related values. The BLM may not permit activities that will lead to levels of contamination in waterways above standards established in the CWA. The DEIS evaluates development alternatives (A, C, D, and E) that would violate standards established under the CAA and the CWA, and therefore may not be approved by the BLM.  | Through the EIS process, the BLM will determine whether to authorize a project with a proposed level of development and enforceable measures intended to mitigate impacts. However, before new facilities are installed, the appropriate agencies, including the State of Utah and EPA, have the authority and the responsibility to evaluate compliance with the CAA and CWA, and issue permits for these facilities and actions. |
| 335       | NEPA            | The DEIS adopts an overly narrow purpose and need focused heavily on the Mineral Leasing Act (MLA) to the detriment of FLPMA.   | Additional information has been added to the Purpose and Need regarding BLM's obligations under FLPMA.   |
| 336       | NEPA            | The DEIS speaks of allowing BBC and other operators to develop their lease rights under the MLA, stating that such "exploration and development of domestic oil and gas is in the best interest of the United States" (DEIS at 1-3). However, the purpose and need neglects to mention that the ultimate guiding document for the BLM is FLPMA, which requires that lands be managed for multiple uses and not solely for mineral development. This oversight is particularly egregious considering the fact that the DEIS is also a document intended to consider whether or not certain lands in the project area should even be leased for mineral development in the first place, and that this document may be intended as a plan amendment. | Additional information has been added to the Purpose and Need regarding BLM's obligations under FLPMA. The BLM also has responsibilities to provide for oil and gas development under the MLA.   |
| 337       | NEPA            | The DEIS purpose and need statement makes no mention of the fact that the BLM's true priority according to FLPMA, is "the designation and protection of areas of critical environmental concern" (43 U.S.C. § 1712[c][3]). In light of this direction from FLPMA, the DEIS's overarching implication that oil and gas development should be placed ahead of all else is simply wrong. The narrowly drawn purpose and need is also likely to improperly predispose the outcome of ongoing land use planning in the Price Field Office.   | See response to comments #52 and 261.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 338       | General         | SUWA adopts the comments submitted to the BLM for the DEIS by the following entities: United States Environmental Protection Agency, National Trust for Historic Preservation, State of Utah, Public Lands Policy Coordination Office, and Utah Rock Art Research Association.  | See responses to each of those entities comments.  |
| 339       | NEPA/ Cultural  | The DEIS fails to comply with the NHPA because it fails to: (1) accurately identify the proposed project's "APE;" (2) assess adverse effects to historic properties from the proposed project; and (3) grant consulting party status to SUWA and other local, regional, and national organizations.   | See responses to comments #700, #6, and #8.  |
| 340       | Cultural        | The BLM failed to identify the APE, thereby limiting its ability to identify historic properties and understand the potential effects of the Proposed Action. The APE is likely to extend beyond the project area boundary.   | See response to comment #700.  |
| 341       | Cultural        | As discussed in Mr. Spangler's comments, the DEIS does not fully assess adverse effects to historic properties from the Proposed Action, as required under 36 CFR 800.4 and 800.5.  | See responses to comments #834-866.  |
| 342       | NEPA/ Cultural  | Parties with "demonstrated interest in the undertaking" may be granted consulting party status. SUWA, with a clearly demonstrated interest in the undertaking was denied consulting party status multiple times. Other local, regional, and national groups with demonstrated interests in the undertaking were also denied consulting party status. These denials were arbitrary. The BLM should grant these entities consulting party status for the reasons stated in SUWA's letters dated November 11, 2005, and June 7, 2006, and more recently in the Nine Mile Canyon Coalition's 2008 request for reconsideration of the BLM's denial of consulting party status. | See responses to comment #8.   |
| 343       | Air Quality     | The air quality analyses presented in the DEIS and Air Quality Technical Report contain numerous deficiencies. As a result of these deficiencies, it is likely that air quality impacts would be predicted to be even more severe than what is presented in the DEIS.   | This comment is not specific enough to address. It fails to describe any inaccuracies in the analysis or suggest potential mitigation measures. However, see responses to comments #345, #346, #347, and #882. |

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| Comment #   | Topic/ Resource | Public Comment  | BLM Response   |
| 344   | Air Quality     | The BLM has not fully and accurately evaluated the air quality impacts from the proposed development, and has not proposed adequate enforceable mitigation measures to assure no adverse impacts on air quality are occurring or will occur in the affected area. | This comment is not specific enough to address. It fails to describe any inaccuracies in the analysis or suggest potential mitigation measures. However, see responses to comments #345, #346, #347, and #882. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 345       | Air Quality     | The BLM does not put forth any alternative in the DEIS that fully protects air quality in the area. | <p>Alternatives C, D, and E include several salient environmental protection measures and mitigation measures (see Table 2.6-8) that are specific to reduce air quality effects. These include:</p> <ul style="list-style-type: none"> <li>• All new and replaced pneumatic controllers will be a no bleed or low bleed design.</li> <li>• Emission controls would be utilized on all condensate storage batteries with emissions greater than 5 tons/year. This would include all tank batteries located at well sites, centralized production facilities and compressor stations. The emission controls may consist of vapor recovery, thermal oxidation or other available technologies. At a minimum, the applied control technology must be capable of reducing emissions by 95 percent.</li> <li>• Best management practices would be employed during completion operations to minimize emissions to the atmosphere as a result of well flowback. The preferential best management practice shall be “Green Completion” where the well flowback is captured, separated, and sold as product. When Green Completions are not technically reasonable, flaring or other control practices shall be employed to minimize venting emissions directly to the atmosphere.</li> <li>• Emissions from engines would be controlled utilizing Best Available Control Technology (BACT) in accordance with Utah Division of Air Quality regulations. Emissions controls may consist of lean-burn technology, catalysts, air/fuel ratio controllers or other technologies as they become commercially available. Engines located at facilities outside of Utah Division of Air Quality jurisdiction (EPA jurisdiction) would be controlled in a like manner.</li> <li>• In accordance with a UDEQ-DAQ letter dated June 6, 2008 requesting implementation of interim nitrogen oxide control measures and compressor engines; BLM would require the following as a Lease Stipulation or Condition of Approval for APDs: <ul style="list-style-type: none"> <li>○ All new and replaced internal combustion oil and gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NOx per horsepower-hour. This requirement does not apply to oil and gas field engines of less than or equal to 40 design-rated horsepower.</li> <li>○ All new and replacement internal combustion oil and gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NOx per horsepower-hour.</li> </ul> </li> </ul> |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
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| 346       | Air Quality     | The Agency Preferred Alternative falls short of establishing enforceable mitigation measures that will ensure that there are no violations of the applicable State and Federal requirements (e.g., compliance with the NAAQS). The BLM must propose a detailed and enforceable mitigation plan prior to issuance of the FEIS that will ensure no violations of CAA standards. | See response to comment #345. The air quality analysis did not indicate potential violations of NAAQS except for ozone. The results presented in the DEIS were under the ozone NAAQS when the document was issued. However, EPA subsequently lowered the NAAQS in March 2008. Since the results now indicate potential exceedances with these most recent NAAQS, additional ozone modeling has been included in the FEIS (see Appendix J and Section 5.3).  |
| 347       | Air Quality     | The BLM must prepare a proper air quality analysis and then must develop an alternative that ensures no violations of CAA standards.  | <p>The models used for the air quality assessments included in this EIS were carefully developed by the BLM's National Air Quality Modelers and the BLM's third-party air quality experts. Furthermore, the protocols were reviewed and commented on by the Utah DAQ. In the Draft EIS the BLM prepared an air quality analysis that evaluated the effects of all criteria pollutants and HAPs with the exception of ozone. In response to public comments on the DEIS, additional ozone modeling has been included in the FEIS.</p> <p>Within the DEIS, ozone impacts from the Proposed Action and alternatives were estimated using the results of an impact analysis performed for the Pinedale Anticline Draft EIS in February 2007. The predicted ozone levels presented in the DEIS did not indicate violations of the NAAQS at the time the DEIS was released to the public (February 1, 2008). However, on March 12, 2008, and thus subsequent to the publication of this DEIS, the EPA changed the NAAQS for ground-level ozone. The revised the 8-hour primary ozone standard, designed to protect public health, is a level of 0.075 ppm. The previous standard, set in 1997, was 0.08 ppm (effectively 0.840 ppm). Because the EPA lowered the NAAQS in March 2008, the predicted values in the DEIS exceeded the new NAAQS for ozone. In view of the ozone levels modeled and predicted for the Proposed Action and alternatives, the BLM concluded that additional cumulative and project-specific ozone modeling needed to be completed. The results of this project-specific ozone modeling are included within Sections 4.3, 5.3, and Appendix J. In addition the results of regional ozone modeling conducted for the UBAQS have been added to Section 5.3.</p> <p>As described in the previous response, the air quality analysis did not indicate potential violations of NAAQS except for ozone.</p> |
| 348       | Air Quality     | The DEIS does not adequately analyze the air quality impacts that could occur as a result of the actions authorized under the DEIS, therefore, failing to comply with NEPA and FLPMA.   | See responses to comments #345, #346, #347, #350, and #882.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
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| 349       | Air Quality     | The air analysis included in the DEIS is not a comprehensive assessment of the environmental and public health impacts resulting from an increase in air pollution in an area already heavily impacted by the adverse effects of increasing development. Without such an analysis, the BLM cannot know what the impacts of the activities proposed in the DEIS will be on air quality and human health or whether the BLM will prevent significant deterioration in air quality, as required by the CAA. | See responses to comments #345, #346, #347, #350, and #882.   |
| 350       | Air Quality     | The BLM's own analysis fails to ensure compliance with the NAAQS for ozone and PM <sub>2.5</sub> , and results in numerous impacts to visibility in nearby Class I and sensitive Class II areas.   | <p>See responses to comments #345, #346, #347, and #882.</p> <p>The DEIS considered potential changes in visibility using the CALPUFF model, which is universally accepted by Federal land managers as the model to use to predict air quality related values at Federally-mandated Class I areas. Visibility impacts were also evaluated at "sensitive" Class II areas for disclosure purposes only because there is no visibility protection for Class II areas under any Federal, State or local law.</p> <p>Potential visibility degradation was evaluated in terms of the change in deciview (<math>\Delta dv</math>) or a change in background extinction (Bext). A 1.0 <math>\Delta dv</math> "Just Noticeable Change" is equivalent to a 10% change in Bext. There are no applicable Federal, State, Tribal, or local visibility standards. However, predicted visibility impacts are compared to Levels of Acceptable Change (LAC) developed by Federal Land Managers (FLAG 2000). This threshold is based on the original development of the deciview scale (Pitchford and Malm 1994), and is supported by EPA's Final Regional Haze Regulation (EPA 1999) decision to use 1.0 <math>\Delta dv</math> as the significance level when preparing periodic reasonable progress reports. Therefore, a "Just Noticeable Change" threshold of a 10% change in the reference background extinction or 1.0 <math>\Delta dv</math> was used. Since the USFS uses a 0.5 <math>\Delta dv</math> as a LAC threshold in order to protect visibility in sensitive areas, comparison to this threshold was summarized in the Technical Support Document.</p> |
| 351       | Air Quality     | The BLM does not ensure that the project will prevent significant deterioration of air quality.  | A PSD increment analysis is the responsibility of the permitting authority. The State of Utah is responsible for construction and operating permits for applicable facilities in the WTP Project Area and surrounding areas. If a proposed facility meets the PSD criteria, the State of Utah has the regulatory authority and requirement to perform a PSD Class II increment analysis. Any comparison to PSD increments presented in the EIS is for informational, impact disclosure purposes (see Sections 4.3, 5.3, and Appendix J). An air quality analysis in an EIS does not constitute a PSD increment analysis because the BLM does not have the authority to perform the analysis. Therefore, this NEPA analysis cannot be used to determine increment consumption. See also response to comment #345.  |
| 352       | Air Quality     | The DEIS does not satisfy the BLM's obligations under NEPA and FLPMA to disclose whether the proposed development will cause CAA violations, and to consider mitigation under NEPA, and to adopt mitigation under FLPMA, to prevent such violations.   | See responses to comments #345, #346, #347, #350, and #882.   |



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| 353       | Air Quality     | All alternative scenarios are shown to violate at least one, if not several of the air quality standards laid out by the CAA and mandated for NEPA projects under FLPMA.  | See responses to comments #345, #346, #347, #350, and #882.   |
| 354       | Air Quality     | The BLM's preferred alternative is predicted to result in NAAQS violations and impacts to air quality related values.   | See responses to comments #345, #346, #347, #350, and #882.   |
| 355       | Air Quality     | The DEIS and associated support documents report exceedances of the ozone NAAQS (DEIS at 4-17), the potential for PM <sub>2.5</sub> NAAQS exceedances (Air Quality Technical Report at 16), and numerous visibility impacts (Air Quality Technical Report at 28).   | See responses to comments #345, #346, #347, #350, and #882.   |
| 356       | Air Quality     | The emissions inventory for the DEIS under-predicts potential emissions from this project. The modeling does not fully evaluate impacts and does not fully disclose the maximum potential impacts. Background concentrations understate current air quality in the area meaning that the adverse air quality impacts would likely be much worse in reality.   | See responses to comments #345, #346, #347, #350, and #882.   |
| 357       | Air Quality     | The BLM must acknowledge the existing air quality concerns in the Uinta Basin and recognize that high background levels of air pollutants can mean that even if the activities analyzed in the DEIS will result in only minor increases in certain pollutants, the aggregate level of pollution that could result might have significant detrimental effects on human health and the environment (e.g., visibility and ecosystems). | See responses to comments #345, #346, #347, #350, and #882.   |
| 358       | Air Quality     | Background concentrations of PM <sub>2.5</sub> and ozone are likely at or exceed NAAQS and leave virtually no room for additional growth in emissions.  | <p>The PM<sub>2.5</sub> values in the EIS have been modified to acknowledge new background concentrations for PM<sub>2.5</sub> based upon limited PM<sub>2.5</sub> monitoring conducted in Vernal, Utah and Uintah/Duchesne counties in 2007. These concentrations were derived through cooperation between the UDAQ and the BLM State Office Air Quality Specialist. See Section 3.3.2.2 and Table 3.3-3 for updated PM<sub>2.5</sub> background concentrations.</p> <p>Likely sources of PM in the Uintah Basin and potential control measures are discussed in Section 3.3.2.2 of the FEIS. Implementation of the dust suppression plan required under Alternative E and the WTP PA would substantially reduce PM emissions. In addition, NOx reducing measures contained in Table 2.6-8 would reduce secondary PM precursors.</p> <p>See also responses to comments #345, #346, #347, #350, #376, and #882.</p> |
| 359       | Air Quality     | Visibility in nearby Class I areas is already impaired.   | See response to comment #350.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 360       | Air Quality     | The DEIS identifies background 24-hour PM <sub>10</sub> and PM <sub>2.5</sub> concentrations for the Uinta Basin of 28 µg/m <sup>3</sup> and 25 µg/m <sup>3</sup> , respectively (see Table 3.3-3 on page 3-18). These background concentrations are based on 2005 correspondence with Dave Prey of the Utah Department of Air Quality (UDAQ). Since the time of that call, in November 2005, 2,243 additional wells have been 'spudded' in Uintah, Carbon, and Duchesne Counties. Therefore, the background concentrations in Table 3.3-3 cannot possibly represent an accurate assessment of current background levels of air pollutants in the basin. The BLM must update the background levels for all pollutants to account for the huge amount of growth that has occurred since 2005 in the area. Of particular concern are the outdated PM concentrations, since the use of higher background concentrations will mean that the project will likely threaten the area's compliance with the fine particle NAAQS. | <p>The BLM does not have the regulatory authority to set background concentrations for pollutant background levels. The State of Utah has the authority to regulate air quality matters for the majority of the WTP Project Area, and the EPA for those portions of the project area occurring in Indian Country. These responsibilities include establishing air pollutant background levels, especially in rural areas where monitoring has not been conducted.</p> <p>The PM<sub>2.5</sub> values in the EIS have been modified to acknowledge new background concentrations for PM<sub>2.5</sub> based upon limited PM<sub>2.5</sub> monitoring conducted in Vernal, Utah and Uintah/Duchesne counties in 2007. These concentrations were derived through cooperation between the UDAQ and the BLM State Office Air Quality Specialist. See Section 3.3.2.2 and Table 3.3-3 for updated PM<sub>2.5</sub> background concentrations.</p> <p>For the remaining criteria pollutant background concentrations, values provided by the UDAQ remain the best available information.</p> |
| 361       | Air Quality     | According to Dave Prey of the UDAQ, he did not provide the PM <sub>10</sub> and PM <sub>2.5</sub> background concentrations reported in Table 3.3-3 of the DEIS.3 The BLM must provide the source and basis for the 28 µg/m <sup>3</sup> and 25 µg/m <sup>3</sup> background concentrations used in the DEIS for 24-hour PM <sub>10</sub> and PM <sub>2.5</sub> concentrations in the Uinta Basin.   | See response to comment #360.   |
| 362       | Air Quality     | Recent PM <sub>2.5</sub> data are available from Vernal, Utah, also within the Uinta Basin. The Vernal monitor was operated by UDAQ from December 2006 through mid-December 2007, and recorded several very high values of PM <sub>2.5</sub> during that time, including six exceedances of the 24-hour PM <sub>2.5</sub> NAAQS. At less than 100 miles away from the WTP development area and without any significant topographical features to isolate the two areas from each other, the Vernal monitor appears to be an excellent representation of the same types of sources impacting the WTP development area.  | See response to comment #360.   |

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| 363       | Air Quality     | All of the recorded exceedances from the Vernal monitor occurred in winter months (January, February and December 2007), so it is likely that without any requirements to reduce emissions of PM <sub>2.5</sub> that occur during wintertime inversions, PM <sub>2.5</sub> concentrations will remain high in January and February 2008.   | See response to comment #360.  |
| 364       | Air Quality     | Just because there are not 3 years worth of monitoring data available for the Vernal area does not mean that these data should not be used as representative of background concentrations. In fact, the BLM routinely establishes background concentrations based on a single year of monitored data. There is no requirement that there be 3 years of data for use in determining background concentrations. In order to ensure that human health is protected, the BLM must use a higher background concentration for PM <sub>2.5</sub> , one that is more in line with the observed maximum concentrations in the area. And unless the BLM can provide justification for why the Vernal data are not the most representative of background concentrations in the Uinta Basin, the BLM must use the high or second high monitored concentration from the Vernal monitor. | See responses to comment #360. |
| 365       | Air Quality     | The maximum 24-hour average concentration at the Vernal monitor in 2007 was 63.3 µg/m <sup>3</sup> based on a one-in-three day sampling frequency. The second highest 24-hour average concentration (the “high second high” value) was 55.7 µg/m <sup>3</sup> . Both of these observed 24-hour average concentrations are more than two times the 24-hour PM <sub>2.5</sub> background concentration of 25 µg/m <sup>3</sup> used by the BLM for the DEIS. Use of the maximum or high second high 24-hour average concentration from the Vernal monitor as the representative PM <sub>2.5</sub> background concentration – either 63.3 µg/m <sup>3</sup> or 55.7 µg/m <sup>3</sup> – is the best way to ensure public health protection.   | See responses to comment #360. |

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| 366       | Air Quality     | Using anything other than the high or second high background concentration does not make sense in this case since there is only one year worth of somewhat incomplete data (i.e., monitoring was scheduled to occur every third day, although most months contain missing data for this schedule and there are no data for the month of August 2007).            | See responses to comment #360.  |
| 367       | Air Quality     | Observed concentrations of PM <sub>2.5</sub> , where even the high sixth high concentration exceeds the NAAQS, indicate that the BLM must find a way to reduce PM <sub>2.5</sub> emissions in the area in order to avoid violating the short-term PM <sub>2.5</sub> NAAQS.   | See responses to comment #360. Likely sources of PM in the Uintah Basin and potential control measures are discussed in Section 3.3.2.2 of the FEIS. Implementation of the dust suppression plan required under Alternative E and the WTP PA would substantially reduce PM emissions. In addition, NOx reducing measures contained in Table 2.6-8 would reduce secondary PM precursors. |
| 368       | Air Quality     | Continuing to approve more development that adds fine particle emissions to the basin will threaten the area's attainment of the NAAQS.  | See response to comment #367. Predicted impacts presented in Sections 4.3 and 5.3 and Appendix J of the EIS did not indicate potential exceedances of any standards other than ozone.   |
| 369       | Air Quality     | The Vernal data representative of background PM <sub>2.5</sub> concentrations in the Uinta Basin should also be used as representative data for PM <sub>10</sub> background concentrations. Background concentrations of PM <sub>10</sub> must be at least as high as the maximum PM <sub>2.5</sub> concentration monitored in Vernal – 63.3 µg/m <sup>3</sup> . | See response to comment #360.   |

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| 370       | Air Quality     | EPA on the revised PM <sub>2.5</sub> standard, unanimously recommended that the 24-hour PM <sub>2.5</sub> standard be lowered from 65 µg/m <sup>3</sup> to 30-35 µg/m <sup>3</sup> , and that the annual standard be lowered from 15 µg/m <sup>3</sup> to 13-14 µg/m <sup>3</sup> . Twelve EPA set the standard on the high end of theCASAC recommended range for the short-term standard and chose not to lower the annual standard at all. In response, CASAC made it clear in their September 29, 2006, recommendation letter to the EPA, that their recommendations were based on “clear and convincing scientific evidence” and that the EPA’s decision not to lower the annual standard does not provide for “an adequate margin of safety ... requisite to protect the public health” as required by the CAA, and furthermore, that their recommendations were “consistent with the mainstream scientific advice that EPA received from virtually every major medical association and public health organization that provided their input to the Agency.” The BLM has an obligation under NEPA to evaluate all potential health effects from exposure to increased pollution under the various alternatives of this DEIS. The fact that the EPA has set the PM <sub>2.5</sub> standards at levels that some would claim are not adequate to protect human health should not limit the BLM to using only EPA’s standards. The BLM must assure adequate protection of human health from exposure to fine particles in the area, and could certainly use the CASAC recommendations as a guide for achieving this protection. | See response to comment #360.   |
| 371       | Air Quality     | Since exceedances of the short-term PM <sub>2.5</sub> NAAQS have already been observed in the Uinta Basin, it is imperative that the BLM not allow for growth in the basin that will result in significant fine particle emissions.   | See responses to comments #360 and #367. Predicted impacts presented in Sections 4.3 and 5.3 of the EIS did not indicate potential exceedances of any standards other than ozone. |

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| 372       | Air Quality     | The amount of growth allowed under any of the alternatives in this DEIS is cause for great concern with respect to the health effects of an increase in PM <sub>2.5</sub> levels in the WTP development area, and the potential future violations of the PM <sub>2.5</sub> NAAQS unless the BLM can assure the public that there will be adequate mitigation of fine particle emissions from oil and gas development.  | See responses to comments #360 and #367.  |
| 373       | Air Quality     | The BLM's preferred alternative proposes to allow an additional 2,000 tons per year of PM <sub>2.5</sub> emissions in the area. Current PM <sub>2.5</sub> levels in the area are not identified in the DEIS but, based on nearby monitoring data, are likely already exceeding the level of the 24-hour PM <sub>2.5</sub> NAAQS. Therefore, the West Tavaputs development certainly has the potential to cause future violations of the short-term PM <sub>2.5</sub> NAAQS, depending on where and when the proposed growth in emissions occurs. | As discussed in the FEIS, implementation of the Agency Preferred Alternative could result in the contribution of approximately 926 tpy of PM <sub>2.5</sub> . Predicted impacts presented in Sections 4.3 and 5.3 of the EIS did not indicate potential exceedances of any standards other than ozone.  |
| 374       | Air Quality     | The only way to know for sure if there is the potential for NAAQS violations is for the BLM to conduct a more comprehensive modeling analysis of the proposed increases in emissions and assess their impacts, based on current background concentration data, on ambient air concentrations in the planning area.   | See response to comment #360. A comprehensive air quality analysis was performed according to a protocol agreed upon by BLM, EPA, the State of Utah Division of Air Quality, USFS, the National Park Service, and the Colorado Air Pollution Control Division. Predicted impacts presented in Sections 4.3 and 5.3 and Appendix J of the EIS did not indicate potential exceedances of any standards other than ozone.  |
| 375       | Air Quality     | If the BLM is going to allow growth in oil and gas development in the area, it must also establish strict and enforceable measures to control fine particle emissions from these sources so that the area will be in attainment of the PM <sub>2.5</sub> NAAQS.  | The BLM does not have authority regulate air quality. The State of Utah has the authority to regulate air quality matters for the majority of the WTP Project Area, and has established rules to protect air quality. Rule R307-205 sets forth emission standards for fugitive dust.  |
| 376       | Air Quality     | Ozone concentrations from the WTP development must be analyzed to determine what impact it will have on ozone concentrations in the region. It is extremely important that the impact of the allowed development on ozone concentrations, along with all other existing and expected growth of ozone precursor emissions in the region, be properly evaluated.   | Within the DEIS, ozone impacts from the Proposed Action and alternatives were estimated using the results of an impact analysis performed for the Pinedale Anticline Draft EIS in February 2007. The predicted ozone levels presented in the DEIS did not indicate violations of the NAAQS at the time the DEIS was released to the public (February 1, 2008). However, on March 12, 2008, and thus subsequent to the publication of this DEIS, the EPA changed the NAAQS for ground-level ozone. The revised the 8-hour primary ozone standard, designed to protect public health, is a level of 0.075 ppm. The previous standard, set in 1997, was 0.08 ppm (effectively 0.840 ppm). Because the EPA lowered the NAAQS in March 2008, the predicted values in the DEIS exceeded the new NAAQS for ozone. In view of the ozone levels modeled and predicted for the Proposed Action and alternatives, the BLM concluded that additional cumulative and project-specific ozone modeling needed to be completed. The results of this project-specific ozone modeling are included within Sections 4.3, 5.3, and Appendix J. In addition the results of regional ozone modeling conducted for the UBAQS have been added to Section 5.3. |

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| 377       | Air Quality     | The CASAC unanimous recommendation was to lower the 8-hour standard from 80 ppb to somewhere between 60-70 ppb. The BLM must consider this when evaluating the air impacts in the DEIS.  | The EIS air quality analyses are based on the current standards and regulations promulgated by the EPA and State of Utah.   |
| 378       | Air Quality     | The BLM must demonstrate that this project will not contribute to violations of the revised ozone NAAQS.   | See response to comment #376.   |
| 379       | Air Quality     | The 8-hour average background concentration for ozone in the DEIS is 53 ppb. Dave Prey is cited as the source of this concentration in 2005, but he claims to not have provided a background concentration to the BLM for ozone. The BLM must describe the basis for this concentration in the DEIS.   | An email was sent to the State of Utah on January 9, 2008, to verify the background values used in the DEIS. The reply from the State of Utah on January 11, 2008, indicated no change in the ozone background value of 53 ppb. Furthermore, the State of Utah comment letter dated April 28, 2008, did not dispute the ozone background value. Therefore, BLM accepts the value of 53 ppb as the best available information. |
| 380       | Air Quality     | The BLM must update the background concentration for ozone to reflect monitored values in the area. Data from ozone monitors throughout the region indicate that background levels are much higher. The 4th highest maximum 8-hour ozone concentration at the Vernal monitor in 2007 was 68 ppb. Canyonlands National Park recorded a 4th high maximum 8-hour average concentration of 72 ppb in 2007. Dinosaur National Monument and Colorado National Monument recorded 4th highest maximum 8-hour average concentrations of 63 ppb and 67 ppb, respectively, in 2007. And Mesa Verde National Monument recorded a 4th high maximum 8-hour average concentration of 70 ppb in 2007. All of these recent monitored values are higher than the 53 ppb used in the DEIS, and all are at levels considered by the CASAC to cause health impacts. | See response to comment #379.   |
| 381       | Air Quality     | Data from ozone monitors throughout the region leaves virtually no room for growth in emissions that contribute to harmful levels of ozone pollution - namely, nitrogen oxides (NO <sub>x</sub> ) and volatile organic compounds (VOCs). The BLM is proposing to allow NO <sub>x</sub> emissions and VOC emissions from the WTP development to add over 1,200 and over 6,000 tons per year of NO <sub>x</sub> and VOC emissions, respectively, to the area. See Table 2-1 on page 2 of the Air Quality Technical Report (Proposed Action).   | A comprehensive ozone analysis is presented in Section 5.3 and Appendix J. Alternatives C, D, and E include multiple mitigation measures (see Table 2.6-8) to reduce NO <sub>x</sub> and VOC emissions. See response to comment #387.   |
| 382       | Air Quality     | The DEIS does not include a modeling analysis of ozone impacts from the WTP development.   | See response to comment #376.   |

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| 383       | Air Quality     | Even considering the fact that we don't know the resultant impacts that could occur as a result of the proposed increase in emissions without completing a dispersion modeling analysis, any increase in emissions of ozone precursors will certainly exacerbate the negative health effects of ozone in the region and is almost certain to threaten the area's compliance with the new ozone standard. | See responses to comments #376, #381 and #387.  |
| 384       | Air Quality     | The BLM must establish strict and enforceable mitigation measures that essentially do not allow for growth in NO <sub>x</sub> and VOC emissions in the area in order to protect human health and to avoid violations of the ozone NAAQS.   | See responses to comments #381 and #387.  |
| 385       | Air Quality     | In order to protect human health and to fulfill its responsibility to provide for compliance with the ozone standard in this DEIS, the BLM must ensure that ozone does not increase further and make a plan within the DEIS to keep ozone below harmful levels.  | See responses to comments #376, #381, and #387.   |
| 386       | Air Quality     | The BLM should fully consider the CASAC recommendations when evaluating the human health impacts from ozone concentrations in the region.  | The EIS air quality analyses are based on the current standards and regulations promulgated by the EPA and State of Utah. |



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| 387       | Air Quality     | The Farmington, New Mexico RMP developed a strategy in which the BLM joined with other air quality control agencies in the area to create the Four Corners Ozone Task Force. The goal of this task force is to develop a plan that would prevent ozone levels from violating the standard. The BLM must also be proactive in Utah and should join with the State and key stakeholders in developing a similar strategy in order to prevent ozone violations here as well. | <p>The BLM is committed to work collaboratively with stakeholders to address air quality concerns. The EPA and UDAQ have been Cooperating Agencies throughout the WTP EIS process. Alternatives C, D, E include multiple measures designed in coordination with the UDAQ to reduce impacts to air quality. These include:</p> <ul style="list-style-type: none"> <li>• Tier II rig standards would be required for all new and re-located rigs.</li> <li>• Emission controls would be utilized on all condensate storage batteries with emissions greater than 5 tons/year. This would include all tank batteries located at well sites, centralized production facilities and compressor stations. The emission controls may consist of vapor recovery, thermal oxidation or other available technologies. At a minimum, the applied control technology must be capable of reducing emissions by 95 percent</li> <li>• Best management practices would be employed during completion operations to minimize emissions to the atmosphere as a result of well flowback. The preferential best management practice shall be “Green Completion” where the well flowback is captured, separated, and sold as product. When Green Completions are not technically reasonable, flaring or other control practices shall be employed to minimize venting emissions directly to the atmosphere.</li> <li>• Emissions from engines would be controlled utilizing Best Available Control Technology (BACT) in accordance with Utah Division of Air Quality regulations. Emissions controls may consist of lean-burn technology, catalysts, air/fuel ratio controllers or other technologies as they become commercially available. Engines located at facilities outside of Utah Division of Air Quality jurisdiction (EPA jurisdiction) would be controlled in a like manner.</li> <li>• In accordance with a UDEQ-DAQ letter dated June 6, 2008 requesting implementation of interim nitrogen oxide control measures and compressor engines; BLM would require the following as a Lease Stipulation or Condition of Approval for APDs: <ul style="list-style-type: none"> <li>○ All new and replaced internal combustion oil and gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NOx per horsepower-hour. This requirement does not apply to oil and gas field engines of less than or equal to 40 design-rated horsepower.</li> <li>○ All new and replacement internal combustion oil and gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NOx per horsepower-hour.</li> </ul> </li> </ul> |

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| 388       | Air Quality     | While the BLM has used a change of 1.0 dv to denote visibility impairment, a threshold of 0.5 dv is much more protective of visibility in Class I areas. All of the Federal land managers (i.e., those agencies with an affirmative responsibility under the CAA for protecting the air quality related values of mandatory Class I areas), including the USFS, consider a 0.5 dv change to be a Limit of Acceptable Change threshold.  | Potential visibility degradation was evaluated in terms of the change in deciview ( $\Delta dv$ ) or a change in background extinction ( $B_{ext}$ ). A 1.0 dv "Just Noticeable Change" is equivalent to a 10 percent change in $B_{ext}$ . There is no applicable Federal, State, Tribal, or local visibility standards. However, predicted visibility impacts are compared to Levels of Acceptable Change (LAC) developed by Federal Land Managers (FLAG 2000). This threshold is based on the original development of the deciview scale (Pitchford and Malm 1994), and is supported by EPA's Final Regional Haze Regulation (EPA 1999) decision to use 1.0 dv as the significance level when preparing periodic reasonable progress reports. Therefore, a "Just Noticeable Change" threshold of a 10 percent change in the reference background extinction or 1.0 $\Delta dv$ was used. Since the USFS uses a 0.5 $\Delta dv$ as a LAC threshold in order to protect visibility in sensitive areas, comparison to this threshold was summarized in the Air Quality Technical Support Document (see Appendix J). |
| 389       | Air Quality     | This DEIS must fully consider existing visibility concerns along with the impacts of the increases in air pollutants that contribute to visibility impairment (e.g., sulfates, nitrates, dust, etc.) that will come from the proposed oil and gas development under the various proposed alternatives.  | The EIS considered potential changes in visibility using the CALPUFF model which is universally accepted by Federal land managers as the model to use to predict air quality related values at Federally-mandated Class I areas. The results of the analysis are presented in the Far-Field Technical Support Document (Appendix J).  |
| 390       | Air Quality     | In addition to visibility, other air quality related values (e.g., sulfur and nitrogen deposition) are indicating that there are ecosystem impacts in Class I areas potentially impacted by the proposed WTP project.   | The EIS considered potential impacts from sulfur and nitrogen deposition using the CALPUFF model which is universally accepted by Federal land managers as the model to use to predict air quality related values at Federally-mandated Class I areas. The results of the analysis are presented in the Far-Field Technical Support Document (Appendix J).  |
| 391       | Air Quality     | The amount of PSD increment already consumed in the Class II area of the proposed project is largely unknown. The recent updates to the RMPs in the Vernal, Moab, Price, Richfield, and Monticello planning areas did not include any assessment of the impacts from the areas' proposed development on Class I or Class II PSD increment consumption. It is plausible that the air quality in this heavily-developed area of Utah has degraded enough to cause concern with regards to compliance with certain PSD increments. | A PSD increment analysis is the responsibility of the permitting authority. The State of Utah is responsible for construction and operating permits for applicable facilities in the WTP Project Area and surrounding areas. If a proposed facility meets the PSD criteria, the State of Utah has the regulatory authority and requirement to perform a PSD Class II increment analysis. Any comparison to PSD increments presented in the EIS is for informational, impact disclosure purposes (see Sections 4.3, 5.3, and Appendix J). An air quality analysis in an EIS does not constitute a PSD increment analysis because the BLM does not have the authority to perform the analysis. Therefore, this NEPA analysis cannot be used to determine increment consumption.   |
| 392       | Air Quality     | The BLM cannot proceed with approving further development in the area, without ensuring the public that development would not further exacerbate the NAAQS exceedances, the consumed PSD increment, the visibility impairment, and other air quality related value impacts in the area.   | A comprehensive analysis and discussion of potential air quality impacts is included in Sections 4.3, 5.3 and Appendix J of the EIS.  |
| 393       | Air Quality     | The BLM has not analyzed whether the proposed WTP development will affect PSD of air quality, as required by the CAA.   | See response to comment #391.   |

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| 394       | Air Quality     | The BLM must complete an analysis to determine how much of the incremental amount of air pollution allowed in clean air areas (i.e., PSD increment) has already been consumed in the affected area, and how much additional increment consumption will occur due to the proposed development. Without this analysis, the BLM is not ensuring that air quality will not deteriorate more than allowed under the CAA. | See response to comment #391.   |
| 395       | Air Quality     | The BLM is required, under NEPA, to analyze and disclose all significant air quality impacts, regardless of whether another agency might address an adverse environmental impact in the future. The BLM must consider the PSD increments as important and legally binding CAA requirements, and it must provide for compliance with these requirements in the DEIS.   | In upholding its CAA responsibilities under FLPMA, the BLM looks to the UDAQ and EPA, as the primary implementing agencies for air quality in the WTP Project Area. Because of their “special expertise” and “jurisdiction by law” with respect to air quality, the BLM has invited, and EPA and UDAQ have agreed, to participate as Cooperating Agencies for this EIS. A comprehensive analysis and discussion of potential air quality impacts is included in Sections 4.3, 5.3 and Appendix J of the EIS. See also response to comment #391. |
| 396       | Air Quality     | The BLM is required under FLPMA, 43 U.S.C. § 1712(c)(8), to “provide for compliance” with all CAA requirements, and thus the BLM cannot authorize an action that would allow the PSD increments to be exceeded.   | In upholding its CAA responsibilities under FLPMA, the BLM looks to the UDAQ and EPA, as the primary implementing agencies for air quality in the WTP Project Area. Because of their “special expertise” and “jurisdiction by law” with respect to air quality, the BLM has invited, and EPA and UDAQ have agreed, to participate as Cooperating Agencies for this EIS. See also response to comment #391.  |
| 397       | Air Quality     | Reliance on the State’s permitting process for large industrial sources cannot be substituted for the BLM’s obligation under FLPMA to “provide for compliance” with the NAAQS and PSD increments.   | In upholding its CAA responsibilities under FLPMA, the BLM looks to the UDAQ and EPA, as the primary implementing agencies for air quality in the WTP Project Area. Because of their “special expertise” and “jurisdiction by law” with respect to air quality, the BLM has invited, and EPA and UDAQ have agreed, to participate as Cooperating Agencies for this EIS. See also response to comment #391.  |
| 398       | Air Quality     | The types of sources proposed in the WTP development (e.g., area sources and numerous smaller point sources) will likely not trigger the need for the operator(s) to obtain any PSD permits from the State, and therefore, a regulatory PSD increment consumption analysis will not occur.  | See response to comment #391.   |
| 399       | Air Quality     | The fact that the State has a legal responsibility to protect increments does not mean that the BLM is relieved of its responsibility under FLPMA to “provide for compliance” with CAA requirements or its obligation under NEPA to fully describe the cumulative impacts of the proposed project and identify mitigation measures to prevent adverse impacts.  | In upholding its CAA responsibilities under FLPMA, the BLM looks to the UDAQ and EPA, as the primary implementing agencies for air quality in the WTP Project Area. Because of their “special expertise” and “jurisdiction by law” with respect to air quality, the BLM has invited, and EPA and UDAQ have agreed, to participate as Cooperating Agencies for this EIS. The EIS includes a detailed direct, indirect, and cumulative air quality analyses in Sections 4.3, 5.3, and Appendix J. Also see responses to comments #387 and #391.   |
| 400       | Air Quality     | The BLM has no assurance that the State will perform any analysis of increment consumption.   | See response to comment #391.   |

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| 401       | Air Quality     | Without a PSD increment consumption analysis to rely on, the DEIS must include an increment consumption analysis so that BLM's obligation to develop and adopt sufficient mitigation measures may be included as part of the DEIS analyses and adopted as conditions in the ROD.  | See response to comment #391.   |
| 402       | Air Quality     | The BLM's modeling predicts that project sources will consume 90 percent of the available Class II annual NO <sub>2</sub> increment. Therefore, it seems highly probable that the Class II annual NO <sub>2</sub> increment will be exceeded when considering all other increment consuming sources in the area that impact the same area impacted by the WTP development.  | See response to comment #391.   |
| 403       | Air Quality     | The BLM has also indicated that the predicted PSD increment violations in EIS documents should not be considered as real increment violations because they are modeled. However, it is impossible to use monitoring data to establish compliance with the PSD increments. The only way to determine compliance is to complete a modeling analysis.  | See responses to comment #391.  |
| 404       | Air Quality     | The BLM is required to "provide for compliance with" all CAA requirements, and cannot authorize an action that would violate the PSD increments, which are a CAA requirement under Section 163.   | See responses to comments #391. |
| 405       | Air Quality     | The BLM failed to complete an assessment of the impacts of the WTP development on ozone concentrations in the region.   | See response to comment #347.   |
| 406       | Air Quality     | The BLM is relying on the ozone modeling assessment completed for the Pinedale Anticline Supplemental EIS in southwest Wyoming to estimate ozone impacts in the project area (DEIS at 4-17). This look at predicted ozone concentrations that are not associated with the proposed development does not satisfy the BLM's obligation to provide for compliance with the ozone NAAQS when considering the impact from project sources. | See response to comment #347.   |

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| 407       | Air Quality     | The modeled concentrations that do not consider the proposed increase in emissions from the WTP development exceed the revised ozone NAAQS, and therefore there is no possible way that the BLM can use the results of the Pinedale Anticline Supplemental EIS modeling to demonstrate compliance with the ozone NAAQS.   | See response to comment #347. |
| 408       | Air Quality     | It is questionable to use a ozone modeling analysis where the area of interest – in this case the WTP development area – lies at the very edge of the modeling domain. This certainly calls into question the reliability of the model predictions that occur at the periphery of the analysis domain.  | See response to comment #347. |
| 409       | Air Quality     | Ozone modeled results are based on results that EPA has previously questioned as representative of the highest predicted impacts.   | See response to comment #347. |
| 410       | Air Quality     | The BLM's reliance on a modeling analysis that likely underestimates ozone concentrations (by not predicting concentrations in the highest emission years and from the inherent underestimation bias in the model runs), and where the area of interest lies at the edge of the modeling domain, and where the results predict NAAQS violations, and where the analysis doesn't even consider the project source emissions, in no way provides for compliance with the ozone NAAQS. The BLM must perform an ozone modeling assessment focused on the Uinta Basin and considering the project impacts along with all other source impacts in the region. The modeling must be based on enforceable mitigation measures that ensure the region's compliance with the revised ozone NAAQS. | See response to comment #347. |
| 411       | Air Quality     | The BLM's near-field analysis based on the modeling results for the 8th highest 24-hour PM <sub>2.5</sub> concentrations show that there is potential for the NAAQS to be slightly exceeded for PM <sub>2.5</sub> 24-hour average. The BLM does not disclose the results of the first-high through seventh-high predicted 24-hour average concentrations when it is likely that some, if not all, of them exceed the NAAQS when added to background concentrations for PM <sub>2.5</sub> .  | See response to comment #360. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
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| 412       | Air Quality     | The BLM has a basic obligation in an EIS to provide full and fair discussion of significant environmental impacts, where in evaluating the significance of the impact, the responsible official must consider the degree to which the Proposed Action affects public health or safety.   | See responses to comments #345, #346, #347, #350, and #882.  |
| 413       | Air Quality     | If any of the predicted 24-hour PM <sub>2.5</sub> concentrations violate the NAAQS, this could be considered to have a significant impact on public health since the CASAC clearly established that there are known health effects from exposure to short-term PM <sub>2.5</sub> concentrations, even as low as 30 µg/m.   | See response to comments #347 and #358.  |
| 414       | Air Quality     | The BLM should disclose and address any predicted PM <sub>2.5</sub> concentrations that, when added to background concentrations, exceed – at a minimum – the level of the NAAQS.  | See response to comments #347 and #358.  |
| 415       | Air Quality     | For the near-field analysis, the BLM assumes that development and operation activities will not occur simultaneously. However, during development, it is quite conceivable that a well pad will be constructed in one location and at the same time, nearby, another well pad will be completed while drilling occurs at yet another (already constructed) well pad, and all of these potential emissions could very well occur over the course of a day. If this is not the case, then the BLM must ensure by enforceable means that these activities will not occur in parallel. If these activities do occur at the same time the combined impacts are predicted to exceed the 24-hour PM <sub>2.5</sub> NAAQS. | The developmental impact analysis conservatively assumed that well pad and access road construction, drilling, and completion activities would occur simultaneously. No violation of NAAQS was predicted under these modeling scenarios. |
| 416       | Air Quality     | If the BLM assumes that development and operation activities will occur at the same time for the far-field analysis, the BLM must address the predicted near-field 24-hour PM <sub>2.5</sub> NAAQS exceedances from concurrent development and operation in the DEIS or, alternatively, ensure through enforceable measures that development and operations activities will not occur simultaneously on any given day.   | See response to comments #347 and #358.  |

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|-----------|-----------------|---|---|
| 417       | Air Quality     | The BLM's analysis of the preferred alternative along with "cumulative sources" predicts visibility impacts in all Class I and Class II area assessed except three. These visibility impacts must be addressed in the DEIS.   | See response to comment #350.   |
| 418       | Air Quality     | The BLM should rely on a 0.5 deciview (dv) change as defining whether there would be significant visibility impacts at the Class I area receptors since all of the Federal land managers consider a 0.5 dv change to be a Limit of Acceptable Change threshold.   | See response to comment #350.   |
| 419       | Air Quality     | Since FLPMA requires that the BLM provide for compliance with CAA requirements, the BLM must not authorize the WTP project if it will cause or contribute to adverse impacts on visibility.   | Through the EIS process, the BLM will determine whether to authorize a project with a proposed level of development and enforceable measures intended to mitigate impacts. However, before new facilities are installed, the appropriate agencies, including the State of Utah and EPA, have the authority and the responsibility to evaluate compliance with the CAA and CWA, and issue permits for these facilities and actions. See also response to comment #350. |
| 420       | Air Quality     | The DEIS fails to provide an adequate mitigation scenario that would remedy the adverse visibility impacts predicted for several Class I and sensitive Class II areas. This is necessary to meet BLM's obligation under NEPA to ensure the professional and scientific integrity of the DEIS, as well as its obligations under the CAA to not only prevent future impairment of visibility, but to also remedy existing impairment. | See response to comments #350 and #345.   |
| 421       | Air Quality     | The model inputs and the way in which the BLM performed the modeling analyses are not adequate to fully assess the potential impacts from the WTP development on an area already impacted by industrial growth.   | See responses to comments #345, #346, and #347.   |
| 422       | Air Quality     | The result of the deficiencies in the modeling is that the adverse air quality impacts from the WTP development would likely be even worse than disclosed in the DEIS.  | See responses to comments #345, #346, and #347.   |
| 423       | Air Quality     | The background concentrations of PM <sub>2.5</sub> , PM <sub>10</sub> and ozone are based on outdated information (from 2005) and do not account for the additional growth in the area that has occurred in recent years (e.g., the 2,243 additional wells that have been 'spudded' in Uintah, Carbon, and Duchesne Counties since late-2005).  | See response to comment #360.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
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| 424       | Air Quality     | Using higher background concentrations for these pollutants that better represent the current air quality in the area would almost certainly result in modeled exceedances (based on BLM's modeling) of the 24-hour PM <sub>2.5</sub> NAAQS, and perhaps even the annual PM <sub>2.5</sub> NAAQS from project sources alone, and would likely result in exceedances of the 24-hour PM <sub>2.5</sub> NAAQS, the annual PM <sub>2.5</sub> NAAQS, and the 24-hour PM <sub>10</sub> NAAQS when considering cumulative impacts.                             | See response to comment #360.  |
| 425       | Air Quality     | The State of Utah has stated that they did not provide the BLM with a background concentration for PM <sub>2.5</sub> for the area and that the background PM <sub>10</sub> concentrations for the area are 63.3 µg/m <sub>3</sub> (24-hour PM <sub>10</sub> ) and 10.4 µg/m <sub>3</sub> (annual). These values are based on the highest monitored PM <sub>2.5</sub> concentrations from the Vernal monitor. The BLM must use these data from Vernal as the basis for background concentrations for PM in the area.                                     | See response to comment #360.  |
| 426       | Air Quality     | The BLM must update the background concentration for NO <sub>2</sub> . The background concentration of 17 µg/m <sup>3</sup> was provided by Dave Prey (UDAQ) in 2005. Since then, oil and gas development in the area has increased significantly and NO <sub>2</sub> concentrations in the area are certainly higher as a result.  | See response to comment #360.  |
| 427       | Air Quality     | The cumulative near-field impacts predicted by the BLM's modeling are already at 82 percent of the annual NO <sub>2</sub> NAAQS, and use of a higher background concentration could be cause for concern regarding future compliance with the annual NO <sub>2</sub> NAAQS.   | See response to comment #360.  |
| 428       | Air Quality     | The PM <sub>2.5</sub> modeling conducted by the BLM for the DEIS only considered primary PM <sub>2.5</sub> (directly emitted from combustion point sources and from fugitive sources). Emissions of NO <sub>x</sub> , VOCs, SO <sub>2</sub> , and ammonia can form, after emitted into the atmosphere, into PM <sub>2.5</sub> and this could potentially be a significant component of ambient PM <sub>2.5</sub> concentrations. Estimates of PM <sub>2.5</sub> formation from these precursors should also be included in the BLM's modeling analyses. | The CalPuff model estimates the formation of secondary ammonium sulfate and ammonium nitrate particles, which are used by the post-processing programs to estimate visibility and deposition impacts. Estimates of PM <sub>2.5</sub> formation from the project were included in the BLM's modeling analyses and are disclosed in Sections 4.3, 5.3. and Appendix J. |



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|-----------|-----------------|---|---|
| 429       | Air Quality     | Since it is possible that the monitored high values in Vernal are due to gaseous pollutants that form fine particles after reacting with other compounds in the air during wintertime inversions, then it would be very important for the BLM to consider these PM <sub>2.5</sub> sources (e.g., NO <sub>x</sub> from diesel combustion) in its air quality impact assessment.  | See response to comments #347, #360 and #428.   |
| 430       | Air Quality     | All of the sources of the primary pollutants that contribute to secondary PM <sub>2.5</sub> formation (e.g., NO <sub>x</sub> , SO <sub>x</sub> and VOC) from the WTP oil and gas development must be accounted for in the BLM's assessment of PM <sub>2.5</sub> impacts.  | See response to comments #347, #360 and #428.   |
| 431       | Air Quality     | The BLM must use the available tools to assess the impact of emissions from the WTP development that contribute to secondary PM <sub>2.5</sub> formation. Resulting PM <sub>2.5</sub> concentrations will be higher when considering the additional impacts from secondary PM <sub>2.5</sub> . Considering the already high PM <sub>2.5</sub> concentrations in the area and the fact that the BLM has not arguably demonstrated compliance with the 24-hour NAAQS, the secondary PM <sub>2.5</sub> impacts are critical to understanding the best way to mitigate health impacts from fine particle pollution in the project area. | See response to comments #347, #360 and #428.   |
| 432       | Air Quality     | Since the Proposed Action includes an annual well development rate of 168 wells in the first (peak) year and 112 pads, the BLM must justify why 15 well pads constitutes a “likely” scenario. It seems possible that many more well pads could be undergoing the many various phases of oil and gas development at any one time. Underestimating the number of well pads could result in an underestimate of ambient impacts from this source.  | The modeled scenario for the Proposed Action includes the realistic assumption that there would be simultaneous construction of three well pads and associated access roads, six wells being drilled, and six wells being completed. All of these activities were modeled to occur within a 1,500-acre area, or about 1.1 percent of the 137,930 acres in the WTP Project Area. The simultaneous construction, drilling, and completion activities could occur anywhere in the WTP Project Area at any time. Therefore, the modeling represents the maximum short-term and temporary impacts that could occur with the most densely spaced development activities. See also response to comment #224. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
|-----------|-----------------|---|---|
| 433       | Air Quality     | The BLM did not evaluate pollutant concentrations at the receptors of maximum concentration. The modeling report makes clear that the BLM did not model within 100 meters of the access road and well pad. Maximum pollutant concentrations of PM, for example, would most likely occur within the 100-meter “buffer zone” between the first receptor and the modeled sources. As a result, it appears that BLM’s modeling failed to capture the receptors with maximum concentrations for all pollutants. The BLM must determine maximum concentrations that occur in the “ambient air,” that is air external to buildings to which the general public has access (see 40 CFR §50.1[e]). Typically, public access to property needs to be blocked, such as by a fence, in order for the air above that property to not be considered ambient air. Thus, just because a high concentration occurs in this so-called “buffer zone” does not mean the concentration can necessarily be ignored. | It is a common (and accepted) modeling practice for road dust generated by vehicle traffic to leave a buffer between the edge of the area source and the receptors. This method is used and accepted because it is well known that unrealistically high values are predicted by most models at the edge of area sources. See also response to comment #347. |
| 434       | Air Quality     | The modeling assumes flat terrain without any justification as to why this is appropriate for the area (Air Quality Technical Report [Near-Field] at 14). The model would likely show higher ambient concentrations if the terrain of the area was taken into account, which is precisely the reason why the BLM should have attempted to estimate the locations of air pollutant sources using the topography of the Uinta Basin and the expected area of development. Rugged terrain, such as that which exists in the area, can readily result in much higher pollutant concentrations than would occur over flat terrain, when emission plumes impact elevated terrain above a source and/or due to trapping of pollutants.   | See response to comments #224, #347, #350, and #345.  |
| 435       | Air Quality     | The BLM’s emissions estimates are based on a number of assumptions on emissions controls that must be made enforceable if they are to be the basis for the BLM’s final decision.  | Any mitigation measures selected by the BLM Utah State Director would be attached to the ROD as Conditions of Approval.   |
| 436       | Air Quality     | As part of this DEIS, the BLM must assess the direct, indirect, and cumulative air quality impacts of all emissions sources affecting the planning area.  | Effects of the project on air quality are addressed in Sections 4.3, 5.3, and Appendix J. See also responses to comments #224, #347, #350, and #345.  |

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| 437       | Air Quality     | If the emissions characterization from these sources is based on assumed controls, then those controls must be established as specific enforceable mitigation measures in the DEIS.   | See response to comment #435.  |
| 438       | Air Quality     | It is critical that the BLM establish an enforceable limit on the number of deep wells drilled to ensure protection of the PM <sub>2.5</sub> NAAQS.   | Project limitations and mitigation measures will be included in the ROD for this EIS.  |
| 439       | Air Quality     | The DEIS also assumed 50 percent control of fugitive dust emissions from well pad, and access road and pipeline construction through application of water. An enforceable requirement to cut fugitive dust emissions in half through watering of construction sites should clearly be specified in the DEIS if the BLM plans to base decisions for resource development in the area on such an assumption. If the BLM is going to assume a certain control technique with a certain control efficiency for reducing fugitive dust, then it must specify that level of control as an enforceable requirement in the mitigation measures in the DEIS. | See responses to comments #347, #375, and #435.  |
| 440       | Air Quality     | The BLM is assuming that construction activities will occur 10-hours per day; from 7AM to 5PM. If construction is assumed to not occur outside these times, then the BLM must specify that as an enforceable requirement.   | 10 hours per day is a reasonable average to use for construction activities for the purposes of modeling. During the winter when daylight is short, construction may only occur 6 to 8 hours per day. Conversely, construction may occur up to 12 hours per day during the longer daylight hours during summer. This actually results in a conservation result since atmospheric conditions are more favorable for better dispersion of pollutants during the summer. See also response to comment #435. |
| 441       | Air Quality     | The BLM cannot assume (or rely on the State permitting authority to make enforceable) certain controlled emission rates.  | The BLM does not have the regulatory authority to set background concentrations for pollutant background levels. The State of Utah has the authority to regulate air quality matters for the majority of the WTP Project Area. However, see response to comment #345.  |
| 442       | Air Quality     | The analysis must be based on uncontrolled emissions if that could occur.   | Emission rates are based on realistic and current emission rates based on current practices, experience, and best available data. See also response to comment #347.   |
| 443       | Air Quality     | The BLM assumes that the heavy-duty pickup trucks used during construction are all gasoline vehicles (no diesel). This assumption seems hard to believe, and therefore must be made as an enforceable requirement by the BLM if the basis for the final decision on this project does not account for the use of any diesel-fueled pickup trucks.   | See response to comment #224.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
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| 444       | Air Quality     | NO <sub>x</sub> and PM emissions will be much higher from diesel-powered trucks than from gasoline-powered trucks, and these potential emissions must be considered. Even though this source is not a relatively large source of NO <sub>x</sub> and PM emissions, every potential under-estimate from emissions sources of NO <sub>x</sub> and PM is important due to the concern with compliance with the ozone, PM and NO <sub>2</sub> NAAQS, as well as the Class II NO <sub>2</sub> increment. | See response to comment #224.   |
| 445       | Air Quality     | All of the assumptions considered as mitigation from uncontrolled air emissions should be clearly detailed in the DEIS, so that government officials that will subsequently be authorizing actions under the resource management plan and issuing air quality permits for the air pollution sources, will incorporate those mitigations into permits and other requirements to make sure the mitigations actually occur. Implementation of these measures will not be assured otherwise.            | See response to comment #224, #345, and #441.   |
| 446       | Air Quality     | The BLM must explain why the Agency Preferred Alternative inventory was not used to determine the impacts from development as prescribed by Alternative E.  | Some of the pollutant emissions under Alternative E were incorrectly calculated in the DEIS. The corrections to the Alternative E emission inventory in the FEIS show that all potential pollutant emissions for drilling and operations under Alternative E would be lower than compared to the Proposed Action. However, the impacts related to construction would be the same. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
|-----------|-----------------|---|---|
| 447       | Air Quality     | There are several other inconsistencies within the emission inventories regarding fugitive dust emissions. For the Proposed Action, which according to the BLM is the inventory used for the near-field modeling analysis, the total PM <sub>2.5</sub> fugitive dust emissions estimated for travel on unpaved roads is 1,037.82 tons per year (see page 3 of the Proposed Action inventory), yet the total PM <sub>2.5</sub> emissions modeled from well development, which would include fugitive road dust plus all other PM <sub>2.5</sub> emissions from drill rigs engines, construction activities, well completion, etc., is only 1,036.9 tons per year. It appears that the BLM did not include any fugitive dust emissions from travel on unpaved roads associated with development and reclamation – a total of over 125 tons per year of PM <sub>2.5</sub> emissions. The total PM <sub>2.5</sub> traffic fugitive dust emissions for the Proposed Action – 1,037.82 tons per year – is also not the total of all the fugitive dust estimates calculated (construction, drilling, completion, reclamation, and infrastructure). The total for all the fugitive road dust emissions appears to actually be 1,108.4 tons per year, or 70 tons per year more than what was purportedly modeled. These differences add up to almost 200 tons per year of PM <sub>2.5</sub> emissions that are unaccounted for in the modeling for the Proposed Action. Similar discrepancies exist for PM <sub>10</sub> . | Development PM emission totals have been corrected per the response to comment #446. However this does not affect modeling results as traffic from infrastructure development does not coincide in time and space during any given 24-hr period with other modeled activities.  |
| 448       | Air Quality     | The BLM did not quantify PM tailpipe emissions from construction vehicles (e.g., heavy haul trucks), drilling tailpipe emissions, completion tailpipe emissions, and development tailpipe emissions. The PM emissions from these diesel-powered engines must be included in the BLM's analysis. Even though this source may not be a relatively large source of primary PM emissions, every potential under-estimate from emissions sources of PM is important due to the concerns with compliance with the PM NAAQS and with visibility impairment.  | The commenter is referred to the emission inventories in Appendix J, which include emission predictions from construction, drilling, completion, and operations tailpipe emissions as well as construction equipment exhaust emissions. Additionally, the PM <sub>2.5</sub> emissions were calculated for diesel drill rig engines as well as for all natural gas combustion engines. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
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| 449       | Air Quality     | Underestimation of PM emissions indicates that the potential for PM <sub>10</sub> and PM <sub>2.5</sub> impacts could be even more significant than indicated in the DEIS. It is unclear whether the increases in PM <sub>2.5</sub> emissions allowed in this DEIS will provide for compliance with PM <sub>2.5</sub> NAAQS. Therefore, the BLM consider enforceable and meaningful ways to reduce particulate matter emissions.   | See responses to comments #247, #345, #346, #347, #350, #446 and #882.   |
| 450       | Air Quality     | The emission inventories calculate NO <sub>x</sub> emissions from drilling operations based on the use of 994-horsepower (hp) drill rigs. The BLM must demonstrate that the size used in the modeling is adequate and consistent with actual data.   | The number, size, and specifications of drill rigs and other project-related emission factors were provided by the project applicant as representative of equipment used to drill wells in the WTP Project Area. The 994 hp is a weighted average from the use of 875 hp rigs used for shallow wells and 2250 hp rigs used for deep wells. All emission factors and assumptions were carefully reviewed by the third-party air quality consultants in coordination with the BLM NOC, and if some cases corrected to provide a more conservative analysis, prior to running the models for this EIS. The model factors included the best available data at the time the modeling was completed. See also responses to comments #224 and #432. |
| 451       | Air Quality     | The number of drill rigs also appears to be inconsistent throughout the BLM's analysis. The BLM states that there would be nine year-round drill rigs for the proposed alternative and no limit to the number of drill rigs for the preferred alternative (the BLM assumes seven drill rigs). Yet, the modeling is based on a "likely development scenario" of six drill rigs. The modeling must be based on the maximum possible number of drill rigs for each alternative considered. Basing emissions on six drill rigs instead of nine could underestimate emissions by 50 percent.  | See responses to comments #224 and #432, and #450.   |
| 452       | Air Quality     | The drill rig engine calculations appear to underestimate emissions for deep wells. The Proposed Action inventory assumes it will take 480 hours (20 days) to drill one well (See page 10 of the Proposed Action inventory). This rate does not appear to fully account for the deep wells in the proposed development which can take up to 92 days to drill. Using the drilling rate data from page 3 of the inventory, it appears that a weighted average drill duration time would be more like 22 days (528 hours per well), and those additional 2 days needed for all 168 wells would result in an 84 percent increase in emissions of each pollutant (e.g., an additional 190 tons per year of NO <sub>x</sub> ). | See responses to comments #224 and #432, and #450.   |

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| 453       | Air Quality     | The potential underestimation of NO <sub>x</sub> emissions from drill rigs indicates that the potential for ozone impacts and PM <sub>2.5</sub> impacts (from secondary formation of nitrates) could be even higher.   | See responses to comments #219, #220, #224, #347, #432, and #450.  |
| 454       | Air Quality     | The DEIS and Air Quality Technical Report do not contain any details of the cumulative source inventory used in the near-field and far-field cumulative modeling analyses.   | A full description of cumulative emissions is now included in the Far-Field Technical Support Document in Appendix J.  |
| 455       | Air Quality     | The BLM must inventory (and include in the technical support documents) all pollutants from all other air pollution sources in the area as well as all sources expected to impact the same areas impacted by emissions from the WTP project. These sources include any State-permitted sources in Utah and surrounding States, any Utah Division of Oil, Gas and Mining permitted oil and gas wells – particularly wells found on lands managed by SITLA, the oil shale research, development and demonstration sites in Utah and Colorado, as well as all RFD sources (e.g., other NEPA projects, proposed power plants, etc.). | See response to comment #454.  |
| 456       | Air Quality     | The reasonably foreseeable development projects inventory should include all sources recently permitted or which have recently submitted complete PSD permit applications but which are not yet operating, that will have an impact on the same areas impacted by the Price planning area.   | See response to comment #454.  |
| 457       | Air Quality     | All of the power plants that have the potential to impact the same Class I areas that are impacted by the WTP project must be included in the BLM's regional inventory. In addition, the BLM must include in the regional inventory any other new or modified sources, other than power plants, proposed in the region including the proposed oil refinery in Green River, Utah.   | The cumulative impact assessment area for the WTP project area, and past, present and reasonably foreseeable air quality emission sources within the assessment are well-defined within Section 5.3 and Appendix J of the FEIS. The CIAA and inventory factors were independently evaluated by the BLM. See also response to comment #454. |
| 458       | Air Quality     | The regional inventory must include any emissions from NEPA projects in Utah and in other States that could be impacting the same area as the impacted area of the WTP development.  | See response to comments #454 and #457.  |

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| 459       | Air Quality     | There are a large number of resource management plans being revised in Utah at the same time, all of which are near to the WTP Project Area. The BLM must make sure that the projected growth in all of these planning areas, as a whole, will not have significant impacts on air quality in the region.   | This comment is beyond the scope of the EIS.   |
| 460       | Air Quality     | The DEIS likely under-predicts air quality impacts from the WTP development. Many of issues (e.g., assumptions that are not made to be enforceable mitigation measures in the EIS, modeling that does not predict maximum impacts, etc.) also apply to the determination of HAP impacts and, therefore, the DEIS likely underestimates HAP impacts as well.   | See responses to comments #219, #220, #224, #345, #347, #432, and #450.  |
| 461       | Air Quality     | The BLM must ensure that all potential sources of HAP emissions are included in the source inventory and maximum impacts are modeled.   | See response to comment #450.  |
| 462       | Air Quality     | The BLM's analysis for the DEIS did not quantify secondary emissions of formaldehyde. If this is the case, the BLM has not included all possible estimations of cancer risk.  | The DEIS air analysis evaluated direct formaldehyde emissions. The commenter does not provide specific information concerning the "secondary emissions of formaldehyde".   |
| 463       | Air Quality     | The BLM seems to have only quantified primary formaldehyde emissions expected from the proposed project, not the contribution of other VOCs emitted from the project to the formation of secondary formaldehyde in the atmosphere downwind from the points of emission. If the BLM has indeed included these emissions, it should provide details of the estimates so that the analysis is clearer to the public. | See responses to comments #450 and #462.   |
| 464       | Air Quality     | It is unclear whether cumulative HAP impacts were analyzed for this DEIS. It appears that most of the BLM's estimates are only for incremental risk associated with the project, and would be imposed on top of existing health risks. The BLM has an obligation under NEPA to fully consider the cumulative impacts of the project, including impacts from sources of HAPs.                                      | A cumulative impact analysis of HAPs is beyond the scope of an EIS because HAP impacts tend to occur very close to facilities. The concentration of HAPs decline rapidly as the distance increase from a source. Project-related HAP impacts are accounted for within the direct and indirect air quality analyses in Section 4.3. |
| 465       | Air Quality     | The DEIS does not seriously explore the impact of emissions of methane from the project or potential mitigation methods to reduce the associated impacts.   | Information on green house gas emissions has been added to Sections 4.3 and 5.3 of the FEIS.   |



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| 466       | Air Quality                  | The DEIS acknowledges the contribution of greenhouse gases to global warming and even inventories the emissions of both carbon dioxide and methane from the proposed project, but then fails to seriously investigate the alternatives available to avoid or minimize these impacts from the project.             | Information on green house gas emissions has been added to Sections 4.3 and 5.3 of the FEIS.  |
| 467       | Air Quality                  | The BLM should consider and adopt the mitigation strategies identified by EPA for minimizing methane emissions from oil and gas development.  | The operator would comply with EPA's Natural Gas STAR Program BMPs, as directed by the applicable permitting authority; EPA in Indian Country Tribal air shed, and State of Utah on State-controlled land. See also response to comment #345. |
| 468       | Air Quality                  | The BLM has not fully evaluated the air quality impacts from the activities analyzed under the DEIS (the proposed development) and has not proposed adequate enforceable mitigation measures to assure no adverse impacts on air quality are occurring or will occur in the affected area.                        | The EIS thoroughly analyzes impacts of the project on air quality. It also includes a suite of salient mitigation measures designed to reduce air quality impacts for Alternatives C, D, and E. See response to comments #345 - #347.         |
| 469       | Air Quality                  | The BLM's mandate under FLPMA to "provide for compliance" with the air quality standards gives the agency the authority to regulate sources on the land it leases in order to prevent violations of applicable air quality standards.   | See response to comments #345 and #360.   |
| 470       | Air Quality                  | The BLM should recognize and implement its underlying authority, as necessary, so as to meet its statutory obligation to provide for compliance with the CAA and related laws and, more fundamentally, to ensure air quality is protected throughout the project area and all other affected areas in the region. | See response to comments #345 and #360.   |
| 471       | Alternatives/<br>Floodplains | We recommend that the term "floodplains" be changed to incorporate "100-year floodplains" in the conservation measures outlined throughout the document.  | The suggested revision has been applied to the FEIS.  |

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| Comment # | Topic/ Resource              | Public Comment  | BLM Response  |
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| 472       | Alternatives/ Wildlife       | We recommend using bird exclusion netting on all reserve pits and evaporation ponds.  | <p>The environmental protection measures for migratory birds in Table 2.6-8 of the FEIS, which would be applied to Alternatives C, D, and E, have been modified to include the following:</p> <p><i>On Federal lands, the operators would install netting on reserve pits to prevent contact of birds with harmful fluids. For water management facilities on Federal lands, -netting or other bird deterrent techniques such as, the “Birdavert System,” would be installed to prevent contact of birds with produced water in water management facilities. If flagging is used, it would be in combination with other bird deterrent techniques. The Birdavert system manufactured by Peregrine Systems, Salt Lake City, UT, is a fully automated system that prevents bird contact with fluids in ponds based on emission of sounds, light, or motion at random intervals that are designed to frighten birds and other wildlife away from ponds. The Birdavert system, which was designed by ornithologists, computer programmers, and radar technologists, specifically uses radar, computer technology, and hazing devices to deter birds from landing on ponds. Use of bird deterrent techniques on State or private lands would be determined by the Surface Management Agency during the onsite process.</i></p> |
| 473       | Alternatives                 | On page 2-19, please clarify how long the reserve pits will be allowed to remain open after drilling activities are complete. The Service recommends draining and filling reserve pits within 90 days of completion of drilling.  | Section 2.1.4 has been modified to include the following language: Upon termination of drilling and completion operations, the liquid contents of reserve pits would be used at the next drill site or would be removed and disposed of at an approved waste disposal facility within 90 days after drilling is terminated. Immediately upon well completion, any saleable hydrocarbons in the pit shall be removed in accordance with Federal Onshore Oil and Gas Operations regulations (43 CFR 3162.7-1).  |
| 474       | Alternatives/ Wildlife       | We recommend using bird exclusion netting on produced water ponds to lessen potential impacts to migratory birds. While the use of flagging on reserve pits is a good idea, studies have shown that flagging alone is not an effective deterrent to birds.  | See response to comment #472.   |
| 475       | Alternatives/ Water          | We recommend using a closed-loop drilling system in all streams, washes, and their associated floodplains if development in these areas cannot be avoided by other means (i.e. directional drilling).   | Under Alternative C, D, and E, closed-loop drilling would be employed in sensitive areas, such as locations proposed within or near 100-year floodplains or drainages.  |
| 476       | Alternatives/ Transportation | If it is assumed that most workers will drive to the project area, please explain why the expansion of existing runways is still being considered in several alternatives. We recommend limiting the expansion of existing runways unless air travel in the project area begins to exceed the existing runways’ intended use. | Under Alternative C, BBC would be required to use aerial transportation to reduce the amount of traffic traveling to the WTP Project Area; whereas, under various other alternatives use of aerial transportation would be encouraged and would remain a viable option but would not be required. Therefore, in order to provide the most conservative traffic estimates, it was assumed that all workers would drive to the WTP Project Area under all alternatives, except for under Alternative C.   |
| 477       | Wildlife                     | We recommend that all potentially suitable MSO habitat that has not been evaluated within the WTP Project Area be evaluated using the 1997 and 2000 habitat models.   | The MSO environmental protection measures in Table 2.6-8 have been modified to require ongoing evaluation/ground-truthing of modeled MSO habitats, such as the evaluations described in Section 3.10.2.1 of the EIS, which described ground-truthing exercises conducted by SWCA that categorized modeled MSO habitats as “good”, “fair” or “poor” habitats for MSO.  |

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| 478       | Wildlife               | On page 3-105, the sentence that begins "Unless permitted by regulation..." is misleading. The MBTA does not have a mechanism to allow incidental take of migratory birds. Please reword or remove that statement.   | The referenced section of the EIS has been corrected as suggested in the comment.   |
| 479       | Alternatives/ Water    | The USFWS' Best Management Practices for work in Utah Streams should be implemented where pipelines or roads cross a stream. In addition, we recommend that the BLM require implementation of the steps detailed in the BLM Technical Note Hydraulic Considerations for Pipeline Crossings of Stream Channels (ftp://ftp.blm.gov/pub/lnstc/TechNotes/TechNote423.pdf). | The referenced citation has been added to Table 2.6-8 as suggested in the comment.  |
| 480       | Alternatives/ Water    | We recommend moving all surface-disturbing activities out of 100-year floodplains that may occur in the WTP Project Area.  | Given the extent of valid and existing lease rights that occur in or near 100-year floodplains, moving all surface disturbing activities outside of 100-year floodplains would preclude the operators' ability to develop those leases. However, Table 2.6-8, includes mitigation measures that are specifically designed to avoid or reduce potential impacts to 100-year floodplains under Alternatives C, D, and E.  |
| 481       | Water/ Soils           | The Service recommends removing or rewording language on page 4-70 that states spills are not likely to migrate off the well pad.  | The text has been modified as suggested. In addition, the sentence that states that potential for contamination of groundwater resources is negligible has been deleted.  |
| 482       | Water                  | While the connection between members of the Green River Formation is poor, there is still a connection. Please remove the statement on page 4-71 that groundwater withdrawal would have "no impact" on springs in the project area and change it to "may impact".  | The text in this section, and sections that describe impacts to springs from the other alternatives, has been revised to: "Although the hydraulic connection between the members of the Green River Formation is poor, extraction of groundwater for project use could potentially impact flows from springs." In addition, under the long-term water monitoring program, the flows from selected springs in the WTP Project Area would be monitored for the life of the project.   |
| 483       | Alternatives/ Wildlife | Project activities should be designed to limit the amount of disturbance to migratory birds in order to prevent take as defined under the MBTA (i.e., limiting surface disturbance during nesting season).   | Table 2.6-8 has been modified to include the following environmental protection measure that would be applied under Alternatives C, D, and E: On Federal lands, surface-disturbing activities would be restricted in high-value migratory breeding habitat for migratory birds during the migratory bird nesting season (i.e., approximately April 15 – August 1). Species-specific spatial and temporal "closures" in high-value breeding habitat would be determined on a site-specific basis during the Federal onsite process. The need to restrict surface-disturbing activities to protect migratory bird nesting activities at a site-specific location would be determined by the Authorized Officer based on the presence of breeding or nesting bird species at the time of surface-disturbing activities, climatic and weather conditions, and/or topographical and/or vegetative visual screening. Priority consideration would be given to BLM sensitive migratory bird species. |

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| 484       | Alternatives/ Wildlife   | Under all alternatives, we recommend reducing noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable MSO habitat, including canyon rims. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims.  | <p>Table 2.6-8 has been modified to include the following environmental protection measure that would be applied under Alternatives C, D, and E: On Federal lands, all noise-producing production facilities (e.g., compressor engines, pump jacks, water pumping units, etc.) within potential MSO habitats* and within 0.5 miles of potential MSO habitat would be tested to determine noise levels of the equipment. If noise from production equipment within potential MSO habitat exceeds 45 dBA, the operators would be required to use reasonable measures (e.g., hospital grade mufflers, housing of equipment, and/or other measures determined to be reasonable by the BLM and operator) to reduce noise levels of that particular facility to 45 dBA or lower. Furthermore, if production equipment located more than 0.5 miles from potential MSO habitat is determined to generate exceedances of the 45 dBA within the 0.5-mile buffer of potential MSO habitat, operators would also be required to use reasonable measures to reduce noise levels of that particular facility so that it does not exceed 45 dBA within 0.5 miles of potential MSO habitat.</p> <p>*As described in Section 3.10.2.1, MSO habitat models were developed by Willey and Spotskey in 1997 and 2000 in an attempt to determine potential MSO habitat within the State of Utah. According to the 1997 and 2000 models, there are approximately 63,930 acres of potential MSO habitat within the WTP Project Area. If future modeling or ground-truthing of existing modeling determines that an area currently mapped as potential MSO habitat actually does not support the constituent elements needed for potential MSO habitat, the operators would not be obligated to comply with this mitigation measure.</p> |
| 485       | Wildlife                 | All water depletions out of the Upper Colorado River Basin are considered an adverse affect on the endangered Colorado River fish species and their critical habitat. Please change the effect determinations under these species and all alternatives to " <i>may affect, likely to adversely affect</i> " for critical habitat.  | Effect determinations for critical habitat of the Colorado River endangered fish species in Section 4.10 have been modified to " <i>may affect, likely to adversely affect.</i> "   |
| 486       | Alternatives/ Vegetation | The applicant committed conservation measures listed in Table 2.2-6 do not appear to address anything specific to the Uinta Basin hookless cactus. In order to remain at the " <i>not likely to adversely affect</i> " decision on the Uinta Basin hookless cactus, adherence to conservation measures outlined in a memo between the BLM and the USFWS dated August 8,2007, should be followed. If adherence to these will not be possible, a " <i>likely to adversely affect</i> " determination should be made. | The Proposed Action and the No Action Alternative do not include a commitment or mitigation measures to implement the conservation measures that were jointly developed by the BLM and USFWS for Uinta Basin hookless cactus. Therefore, the effects determinations for the species under the Chapter 4 impact Proposed Action and No Action analyses for Uinta Basin hookless cactus (see Sections 4.10.2.1 and 4.10.2.2) have been changed to " <i>may affect, likely to adversely affect.</i> " However, the conservation measures are incorporated into Alternatives C, D, and E (see Table 2.6.-8) and were considered within the impact analyses for the species under these alternatives. Therefore, the effects determinations under Alternative C, D, and E for the Uinta Basin hookless cactus is " <i>may affect, not likely to adversely affect.</i> "  |
| 487       | Water                    | On page 3-67, first paragraph, the phrase "sandstone zones" should be replaced with "the porous and fractures zones". The Birds Nest aquifer is not a sandstone aquifer.   | The suggested change has been incorporated into the EIS.  |

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| 489       | Alternatives/ Special Designations | The EIS needs to better clarify the difference between the existing Nine Mile ACEC (Vernal Field Office) and the proposed Nine Mile ACEC (Price Field Office).  | Section 3.17 of the DEIS clearly explained the differences between the existing Nine Mile Canyon ACEC (established for lands surrounding Nine Mile Canyon in the Vernal Field Office planning area as part of the Diamond Mountain RMP) and the Potential Nine Mile Canyon ACEC (that was being considered for designation by the Price Field Office during the land use planning process).<br><br>Since publication of the DEIS the BLM has completed the land use planning process. Within the Approved RMP (October 2008) the BLM designated Nine Mile Canyon as an ACEC.  |
| 490       | Paleo                              | On pages 3-8 & 3-9 in the paleontology section, the old BLM 3-tier determination of sensitivity needs to be replaced with the newer 5-tier system.  | The suggested change has been made in the FEIS.   |
| 491       | Alternatives/ Land Use             | Page 3-134 needs to include a description of how many acres of the WTP Project Area are managed by the Vernal Field Office.   | The text has been modified so that it is clear that portions of the WTP Project Area fall within the Vernal resource planning area.   |
| 492       | Cultural                           | Tables 4.12-1 and 4.12-2 do not include Duchesne County archaeological sites listed. If any are known to occur in the project area, they need to be added to these tables.  | No sites in Duchesne county are directly affected by proposed or alternative actions.   |
| 493       | Alternatives/ Cultural             | Why are block Class III cultural resource inventories not proposed for this project rather than site-specific surveys currently proposed under all alternatives?  | There is no clear mandate that requires one type of survey over the other. Decisions concerning the intensity of the cultural resource inventory should be made based on the extent of the disturbance in the permit, the number of known cultural resources in the area, the number of previous, known, and potential disturbances in a particular area, and physical characteristics of the area such as topography, proximity to springs, geomorphology, etc. The placement of well pads, other facilities, and ROWs are conceptual and do not depict the actual location of any particular disturbance. Figures 2.2-1-2.6-1 indicate that there are large portions of the WTP Project Area where no wells or other disturbances are planned. Nonetheless, as under the Programmatic Agreement for the WTP Project, BBC will be required to fund a Class II survey not to exceed 3,700 acres, or approximately 2.5 percent of the APE. |
| 494       | Cultural                           | Covering of rock art panels and figures by dust and/or magnesium chloride is a direct effect, and not an indirect effect.   | See response to comment #1238.  |
| 495       | Cultural                           | On page 4-214 of the DEIS, the first sentence of the second paragraph contradicts the statement in the first paragraph; "...sites by the road could be disturbed." The statement needs to be clarified [such that sites by the road are being affected by existing traffic and dust on the Nine Mile Canyon Road and would be affected by additional project related traffic and dust.] | The BLM is unable to find the referenced statement.   |

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| 496       | Cultural        | On page 4-218 of the DEIS, the last sentence of the summary stated that "...the potential for direct impacts to cultural resources is relatively low." Does this sentence cover all of the project area or is it confined to one area only? What does "relatively low" mean?        | Given the requirement for Class III cultural resource surveys prior to any surface disturbance, and subsequent requirements to avoid eligible properties, the potential for direct impacts to cultural resources is relatively low. Class III cultural resource inventories, as described in Appendix N, should identify most, if not all, cultural resources in any given disturbance area, be it a well pad, pipeline ROW, or associated infrastructure. |
| 497       | Dust Study      | Who is doing the dust/rock art study? When was it started? When will it be completed and reported upon? Will conclusions from the final study be implemented in the FEIS?   | See response to comment #53.   |
| 498       | Exec. Summary   | The Executive Summary should include the total number of acres that would be disturbed over the life of the project.  | The Executive Summary contains a list of short- and long-term disturbance, as well as maximum annual and total unreclaimed disturbance thresholds.   |
| 498       | Cultural        | On page 4-221, the DEIS stated under the Native American Consultation and TCPs discussions that "...high levels of traffic does have deleterious effects." This sentence contradicts earlier statements about dust, etc. having an indirect effect of rock art next to the road(s). | See response to comment #1238.   |

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| 499       | Cultural        | On March 12, 2008, the Hopi sent the BLM Vernal Field Office a letter which stated that the Hopi Clans considered Nine Mile Canyon to be a TCP. This information will need to be incorporated into the FEIS.  | <p>The Hopi Tribe did not make this claim during the course of consultation. The consultation record (summary report submitted to the BLM on January 9, 2007) shows that only one TCP was identified by the Uintah and Ouray Ute Indian Tribe. During a July 19, 2006, meeting between the BLM and the Hopi Cultural Preservation Office, the tribe asserted a claim of cultural affiliation to the inhabitants of Nine Mile Canyon and requested an ethnographic overview of the Nine Mile Canyon complex that would allow BLM personnel and the BBC a better understanding of the Hopi connection to the proposed WTP Project Area.</p> <p>The BLM also hosted a two day field visit with the Hopi to the proposed WTP Project Area on September 12-13, 2006. During the field visit, several clan symbols were identified on rock art panels in Nine Mile and Dry Canyons. Following the field visit, the Hopi Tribe made a second request for an ethnographic study. During a follow-up telephone call with the tribe, Terry Morgart said that he did not want to identify individual panels as TCPs, but would rather work with the Nine Mile Coalition and BLM to secure the Nine Mile Canyon Historic District nomination to the National Register of Historic Places. He was against the idea of listing the individual panels as TCPs because this would segment the cultural significance of the canyon.</p> <p>The BLM agreed that the ethnographic overview was necessary. This study, funded by the proponent, is currently being produced by an independent contractor.</p> <p>In a telephone conversation on May 9, 2008, Terry Morgart said that the TCP claim was currently informal and undefined, and said that the Tribe would probably not pursue a TCP nomination that corresponds with Bulletin 38 National Register eligibility guidelines.</p> <p>In a meeting was held on November 20, 2008, the Hopi Tribe decided to hold their TCP claim in abeyance. This decision was made mainly because of protections afforded to Nine Mile Canyon through designation of the Nine Mile Canyon ACEC in the Price Field Office Approved RMP (BLM 2008b).</p> |
| 500       | Cultural        | In Section 4.12.3.2, please clarify the difference between vibration levels from heavy truck traffic versus vibration levels from light vehicles such as pickup trucks.   | See response to comment #1240.  |
| 501       | Cultural        | With regard to the third paragraph on page 4-226 of the DEIS, what benefits would accrue from reducing "light traffic" versus no reduction in "heavy truck and trail or traffic"? Why is the probability of vibration effects lowered based on the above-mentioned statement? | See response to comment #1240.  |

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| 502       | Cultural        | Section 5.12 of the cumulative impacts sections suggests that the magnitude of cumulative impacts on cultural resources depend largely on what, if any, cultural resources occur within the CIAA. Why state this fallacy when cultural sites are known?   | The BLM agrees that the statement in question merits revision. While several Class I and Class III cultural resource inventories have been completed within the CIAA for cultural resources (i.e., the APEs for this project), the entire CIAA has not been inventoried. Thus, there are likely substantial numbers of cultural sites and resources that have yet to be discovered or documented within the APEs. Hence, it is accurate and appropriate to state that the magnitude of potential cumulative effects from the WTP project, plus other relevant past, present and reasonably foreseeable development, is highly dependent upon the level of cultural resources that occur within the CIAA. The statement has been revised to read that “the magnitude of cumulative impacts on cultural resources would depend largely on the locations and extent of (previously undocumented) cultural resources that occur within the CIAA, and the cultural significance of those resources.” |
| 503       | General         | While the State considered local governments' input during preparation of its comments, the BLM should also fully consider the comments submitted directly by local governments.  | Carbon, Duchesne, and Uintah Counties have been Cooperating Agencies throughout this EIS process. Comments, input, and suggestions provided by County governments at various phases of the project have been considered and addressed.  |
| 504       | NEPA/ Cultural  | We encourage the BLM to continue to work with the SHPO to consider potential effects and develop proactive solutions to the challenging resource issues in this project area. Careful analysis of cumulative and indirect impacts from any proposed drilling in the canyon bottoms, from dust due to traffic in the canyon itself, and indirect effects resulting from potential increased site visitation, will require detailed analysis in the FEIS. The SHPO looks forward to working with BLM in completing this analysis.   | The BLM has and will continue to work with the SHPO as required by the National Historic Preservation Act (NHPA) .  |
| 505       | NEPA            | In Section 1.5.1, conformance with the Price River MFP of the FEIS should include a statement acknowledging access to all TLA parcels among the bullet points for planning criteria.  | The bullets contained within this section come directly from FLPMA. It is well established through court precedent that BLM is obligated to grant reasonable access to the State of Utah and its grantees, assigns and/or successors-in-interest to school trust lands notwithstanding any special designation or avoidance/exclusion area for ROWs on intervening BLM lands.   |
| 506       | Socioeconomics  | The State, through the Public Lands Policy Coordination Office (PLPCO), contracted with the Bureau of Economic and Business Research at the University of Utah, which completed an economic impact study of the oil and gas exploration and production industry in the Uinta Basin titled The Structure and Economic Impact of Utah's Oil and Gas Exploration and Production Industry: Phase I - the Uinta Basin. This study was followed by the Phase II - Carbon and Emery Counties study. The full Phase I study is attached for your consideration as Attachment B, and the Phase II study is attached for your reference as Attachment C. Information from these studies should be incorporated into the FEIS. | Baseline information contained in the DEIS is based on use of the best available information, and is consistent with the BEBR reports provided. The primary difference between the BEBR reports and that which is contained in the EIS is that the BEBR reports contain more recent data. Minor revisions have been made to Section 3.13 as necessary. The impact analysis in the EIS is based in part on specific information provided by the proponent, as opposed to general trends within the region.   |



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| 507       | NEPA            | Chapter 4 lacks reference to, or analysis of, certain elements of the project's indirect impacts on the environment. Please review Chapter 4 and provide analysis of the indirect impacts of the project in all appropriate contexts.  | The comment lacks specific examples and is too vague for the BLM to respond to. Indirect impacts to resource values are addressed in the EIS.  |
| 508       | Air Quality     | Chapter 3, Table 3.3-3: Background for PM <sub>2.5</sub> was not provided by the UDAQ, but there is a value listed for it in the DEIS. The UDAQ does not currently require PM <sub>2.5</sub> modeling for new sources, and therefore has not developed background PM <sub>2.5</sub> values for studies such as this EIS. The EPA has not finalized its guidance on modeling new sources for compliance with the new PM <sub>2.5</sub> NAAQS. Methods for modeling secondary particle formation, as well as treatment of background, need to be developed before there are any regulatory requirements. There should be some discussion regarding the current guidance on PM <sub>2.5</sub> modeling. | See response to comment #360.  |
| 509       | Air Quality     | Chapter 3, Table 3.3-3: The background PM <sub>10</sub> data has recently been revised to include recent PM measurements in the Vernal area. Please correct the background for PM <sub>10</sub> to the following: 24-hour PM <sub>10</sub> 63.3 µg/m <sup>3</sup> , Annual PM <sub>10</sub> 10.4 µg/m <sup>3</sup> .   | The FEIS reflects this change in the PM <sub>10</sub> background level. The annual PM <sub>10</sub> background level was not incorporated because an annual NAAQS no longer exists for PM <sub>10</sub> . See also response to comment #360. |
| 510       | Air Quality     | The UDAQ models unpaved haul road impacts up to the edge of the road's ROW. In the DEIS, the modeling used a buffer zone of 100 meters between the roads and model receptors. This would tend to under-estimate impacts from the road. Unless the area is fenced off and considered private property, the area must be treated as ambient air. Modeling should be performed to assess the maximum impact on the NAAQS, which would mean placing receptors along ROWs, and in all areas that are considered ambient air.  | See response to comments #224, #347, #350, and #360.   |

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| 511       | Air Quality     | Appendix J, AERMOD Modeling report, Section 5.1: The DEIS used flat terrain in the model. The study area is not flat and should therefore be modeled using actual terrain elevations.  | The modeling for developmental activities (pad and road construction, drilling, and completion) was performed to simulate a “likely” scenario of the simultaneous construction of the construction of a well pad and road at three locations, the drilling of a well and associated traffic at six locations, and the completion of a well and associated traffic at six locations. This scenario was created to represent the maximum level at activity at closely spaced activities that would occur simultaneously. Since the scenario does not represent any particular location, flat-terrain was used. Under the regulatory default mode (DFAULT option on the MODELOPT keyword), for all situations in which there is a difference in elevation between the source and receptor, AERMOD simulates the total concentration as the weighted sum of 2 plume states (Cimorelli, et. al., 2004): 1) a horizontal plume state (where the plume’s elevation is assumed to be determined by releases height and plume rise effects only, and thereby allowing form impingement in terrain rises to the elevation of the plume) and 2) a terrain-responding plume (where the plume is assumed to be entirely terrain flowing). For cases in which receptor elevations are lower than the base elevation of the source (i.e., receptors that are down-slope of the source), AERMOD will predict concentrations that are less than what would be estimated from an otherwise identical flat terrain situation. While this is appropriate and realistic in most cases, for cases of down-sloping terrain where expert judgment suggests that the plume is terrain-following (e.g., down-slope gravity/drainage flow), AERMOD will tend to underestimate concentrations when terrain effects are taken into account. AERMOD may also tend to underestimate concentrations relative to flat terrain results for cases involving low-level, non-buoyant sources with up-sloping terrain since the horizontal plume component will pass below the receptor elevation. Sears (2003) has examined these situations for low-level area sources, and has shown that as terrain slope increases the ratio of estimated concentrations from AERMOD to ISC (which assumes flat terrain for area sources) decreases substantially. To avoid underestimating concentrations in such situations, it may be reasonable in cases of terrain-following plumes in sloping terrain to apply the non-DFAULT option to assume flat level terrain. See also response to comments #224, #347, #350, and #360. |
| 512       | Air Quality     | Appendix J, AERMOD Modeling report, Figure 5.1: The figure depicts the cumulative source model layout. The alignment of the roads is nearly perpendicular to the prevailing winds, which would lead to maximum impacts from a cross wind. Worst-case impacts usually occur with winds nearly parallel to the road, which would occur on an infrequent basis as the model is currently setup. A better approach would be to use an actual layout of well pads and roads, with more well pads and roads included. Only three well pads are modeled in the cumulative analysis. More well pads should be included if a hypothetical (generic) model setup is to be used. Also, worst-case meteorology should be used instead of data that is some distance from the area, and may not be representative of the modeling study area. | Figure 5-1 depicts a scenario of well pad construction, well drilling, and well completion activities including traffic. This scenario was modeled with 5 years of meteorological data that consisted of 1,825 24-hour periods. Therefore, over the course of these 1,825 24-hour periods, all dispersion situations will likely be evaluated. BLM concluded that the meteorological data obtained from Canyonlands National Park was the best available AERMOD data because no other meteorological data sets have been developed for eastern Utah. See also response to comments #224, #347, #350, and #360.  |

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|-----------|-----------------|---|---|
| 513       | Air Quality     | Appendix J, Calpuff Modeling Report, Table 3-1: The bias settings that are listed in this table are non-default values. The UDAQ recommends that the default bias of 0 for all cell heights be used.  | The BIAS values shown in Table 3-1 were set to have maximum influence of the surface stations through the mixing layer to 160 meters. Then BIAS was set for no influence from either surface or upper stations to 1,500 meters. Then the BIAS parameter for upper air stations was applied in increasing influence to the top of the modeled atmosphere. The bias of "0" for all cell heights would indicated that there is not influence from either the surface data or the upper air data meteorology in any of the cell heights. According to the June 2006 protocol, "Calmet windfield data will be supplemented by hourly surface stations across the assessment area." This procedure requires users to set realistic and representative BIASinput based on topography or professional judgment. See also response to comments #224, #347, #350, and #360.   |
| 514       | Air Quality     | Appendix J, Calpuff Modeling Report, Section 5.2.1: The project impacts, when total cumulative visibility extinction exceeds 10 percent reduction, needs to be determined. FLAG recommends that the project's contribution to the extinction in these cases be less than 0.4 percent. There should be an estimate of the proposed alternative's contribution to the total, so that this can be determined.                          | <p>The Final WTP Air Quality Protocol states the following in Section 7.7.2. The first level screening analysis for visibility will be to follow the recommendations in the FLAG 2000 Guideline document (FLAG 2000). Specifically this analysis will compare daily modeled primary (PM10 and PM2.5) and secondary (sulfate and nitrate) particulate matter concentrations to assumed "natural" background conditions and daily relative humidity [f(RH)] values. From this comparison, a potential change in deciview will be calculated. The visibility assessment methodology utilized for this analysis is referred to as "Method 6" in the CALPOST routine.</p> <p>Potential visibility degradation will be evaluated in terms of the change in deciview (<math>\Delta dv</math>) or a change in background extinction (Bext). A 1.0 dv "Just Noticeable Change" is equivalent to a 10 percent change in Bext. There are no applicable Federal, State, Tribal, or local visibility standards. However, predicted visibility impacts are compared to Levels of Acceptable Change (LAC) developed by Federal Land Managers (FLAG 2000). This threshold is based on the original development of the deciview scale (Pitchford and Malm 1994), and is supported by EPA's Final Regional Haze Regulation (EPA 1999) decision to use of 1.0 dv as the significance level when preparing periodic reasonable progress reports. Therefore, a "Just Noticeable Change" threshold of a 10 percent change in the reference background extinction or 1.0 <math>\Delta dv</math> is utilized. Since the Forest Service uses a 0.5 <math>\Delta dv</math> as a level of acceptable change (LAC) threshold in order to protect visibility in sensitive areas, comparison to this threshold will be summarized in the Technical Support Document.</p> <p>See also response to comments #224, #347, #350, and #360.</p> |
| 515       | Air Quality     | Appendix J, Calpuff Modeling Report, Calpuff input file: Ammonia - Recommend the use of seasonal or monthly values if data can be found to support this. The default of 10 ppb is much higher than the value of 1 ppb as used in the DEIS, and therefore should be used unless there is data collected in the study area. Since there is no monitored ammonia data in the study region, the default value of 10 ppb should be used. | <p>The CALPUFF model requires background concentrations of ammonia (NH3) and ozone (O3) to calculate chemical transformations of NOx to NO3 and HNO3. The IWAQM Phase II Report recommends a background NH3 concentration of 0.5 parts per billion (ppb) for forested land, 1 ppb for arid lands, and 10 ppb for grassland (IWAQM 1998). The default ammonia concentration for arid lands of 1 ppb has been appropriately assumed for the CALPUFF model since the Uinta Basin occurs in an arid climate.</p> <p>See also response to comments #224, #347, #350, and #360.</p>   |

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| 516       | Water                           | The Division of Water Quality prefers underground injection of salt water, if possible. A combination of disposal methods is usually necessary. We recommend an aggressive recycling and reuse program be used and that the use of surface pits be minimized. It is noted that an aggressive plan to recycle water from drilling and production activities can also have a significant impact on the amount of traffic accessing this area. | Section 2.1.5.3 of the EIS recognizes that water from drilling and completion operations would be recycled. A statement has also been added to Section 2.1.7 that water consumption may be reduced by recycling where feasible. Each alternative contains a combination of disposal methods. BBC currently has one Salt Water Disposal (SWD) within the WTP Project Area with additional wells contemplated. Subsurface disposal of water is the preferred by the BLM and will be encouraged. |
| 517       | Water                           | In reviewing TLA's records, it also owns the several surface diversion water rights which are not listed in Table 3.5-9. Please update the table so that it includes the diversion water rights provided in our comment letter:   | Table 3.5-9 has been updated to include the information provided.   |
| 518       | Alternatives                    | Wherever possible, TLA would prefer pipelines not to be buried, particularly if it requires blasting of rock or other extremely disruptive surface disturbance. The BLM should weigh the alternatives of buried vs. surface pipelines where permanent damage could result by attempting to bury lines.  | See response to comment #93.  |
| 519       | Alternatives                    | TLA suggests the highest priority be given to disposing of water in the subsurface. The BLM should encourage BBC to otherwise dispose of its produced water by injection rather than through evaporation ponds, and act proactively in approving water disposal applications.   | See response to comment #516.   |
| 520       | Alternatives/<br>Transportation | TLA would like to work cooperatively with BBC and the BLM to determine which roads that access trust lands might be subject to gating.  | Existing and proposed roads that could that could potentially be subject to gating are shown on Figures 2.4-1 - 2.6-1.  |

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| 521       | Alternatives/ Transportation | With respect to gating of roads, the BLM needs to consider: (1) continued motorized administrative access on "non-designated" or gated routes providing access to trust lands will be permitted to TLA, its permittees, grantees, and successors-in-interest notwithstanding any closure to the general public; (2) allow TLA, its permittees, grantees, and successors-in-interest to undertake reasonable maintenance activities to preserve and improve existing access across BLM lands, after consultation and appropriate environmental review by BLM; and (3) existing routes that are the sole access to State trust lands will not be reclaimed without full BLM consultation with, and approval by, TLA. | Administrative access to routes providing access to trust lands would be permitted to SITLA, its permittees, grantees, and successors-in-interest as appropriate by the BLM. See text revisions in 2.4.11.1 and 2.6.11.1. In addition, no existing routes would be reclaimed that are the sole access to State trust lands without consultation with SITLA. See text revisions in Sections 2.4.2.2 and 2.6.12.1.  |
| 522       | Land Use                     | The map incorrectly shows TLA's mineral position within the EIS area. Please correct map by obtaining a current land status map from TLA's GIS department at 801-538-5100.   | See response to comment #681.   |
| 523       | Land Use                     | BLM is reminded that it must provide reasonable access to the trust lands within the EIS area.   | Comment noted. Under no alternative is reasonable access to proposed development on trust lands restricted.   |
| 524       | Wildlife                     | All efforts should be made to plan effectively so that sagebrush parklands are sustained and protected. It is more important to retain, maintain, enhance, and preserve existing habitat than to attempt to recreate habitat in alternate locations.   | The Agency Wildlife Mitigation Plan focuses on mitigation designed to offset or compensate for some of the anticipated effects of the project on wildlife and wildlife habitats. Some of the key design features of the agency alternatives (see the environmental protection and mitigation measures applied to Alternatives C, D, and E for wildlife in Table 2.6-8, and the special protective measures for wildlife in Sections 2.4.1.2 and 2.6.1.4) are specifically intended to avoid, prevent, or minimize potential impacts to wildlife, including sage-grouse. |
| 525       | Wildlife                     | The effect on elk of landscape and habitat fragmentation by new roads, well pads, traffic, and other facilities/activities is inadequately addressed in the DEIS. Particular to the WTP Project Area, fragmentation caused by development will take place in "bottleneck" areas where wildlife migration routes between elk summer and winter ranges exist only on top of mesas. UDWR is concerned that this has the potential to displace and isolate wildlife. The project-specific constriction of travel corridors on the tops of narrow mesas is not adequately addressed in the DEIS, and needs to be analyzed more closely.   | The referenced section of the EIS has been modified to include more information on the potential effects of wildlife displacement and isolation on mesa tops.   |

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| 526       | Wildlife        | Increased road traffic may be detrimental to sage-grouse. Sagebrush patches in the winter range are relatively small and merely moving a road to adjacent pinyon-juniper may not shift vehicles far enough away from the sage-grouse. This is a particular problem on Prickly Pear Mesa where all re-route alternatives still direct traffic through sage-grouse use areas.   | The referenced section acknowledges that road realignments out of core habitats would reduce, but would not eliminate traffic-related effects to sage-grouse.  |
| 527       | Wildlife        | The BLM should establish a PAC for the pair of Mexican spotted owls are located in Flat Canyon.   | See response to comment #284.  |
| 528       | Wildlife        | No surface occupancy should be allowed within sage-grouse winter use areas in Harmon Canyon (Prickly Pear) and Sagebrush Flat. Furthermore, UDWR recommends that access roads be removed from Sagebrush Flat to minimize disturbance. UDWR recommends all reasonable measures should be taken to avoid and reduce the effects of surface-disturbing activities in occupied sage-grouse strutting, nesting, or brood-rearing habitat and core winter use areas, particularly Harmon Canyon and Sage Brush Flats. | Mitigation measures in sage-grouse core winter use areas were developed to protect sage-grouse habitat, to be consistent with land use planning objectives, and to recognize valid and existing lease rights. NSO within sage-grouse core winter use areas could preclude operators from developing their leases, and would not be consistent with existing lease stipulations. Specific mitigation measures, which the BLM has included in the range of alternatives to minimize impacts to sage-grouse habitats.   |
| 529       | Wildlife        | Impacts to core use areas along Bishop Ridge and Cowboy Bench should be considered when determining wildlife impacts.   | Both Cowboy Bench and Bishop Ridge are outside the WTP Project Area. Implementation of the Proposed Action or alternatives would not result in direct, indirect, or cumulative impacts to sage-grouse core winter use areas in either of these locations.  |
| 530       | Wildlife        | Section 3.10.3.2 should include information on the airstrip in Harmon Canyon. Also, the road realignment should be re-analyzed to take sage-grouse use of the airstrip into consideration. To avoid impacts, the road should be re-routed either farther north to the edge of the mesa or to the south on the narrow pine ridge.  | Section 3.10.3.2 acknowledges the presence of the air strip within sage-grouse habitat: The WTP Project Area provides important wintering habitat for sage-grouse. Wintering sage-grouse tend to concentrate within the two "core winter use areas" illustrated on Figure 3.10-2, one of which includes the area in and around the existing Interplanetary airstrip. The proposed road realignment outlined under Alternative A cannot be modified by BLM as it is a component of the operators' Proposed Action. However, the special mitigation measures for wildlife for Alternatives C and E within Sections 2.4.1.2 and 2.6.1.2 have been modified so that road realignment decisions within sage-grouse core winter use areas would be made in cooperation with the UDWR: "Disturbance would be minimized in and around core winter use areas through strategic planning for optimal realignment of existing roads and placement of new roads, well pads, and other infrastructure, thereby reducing habitat fragmentation (see Figure 2.4-1). Strategic planning would include cooperation with the UDWR to determine appropriate locations for road realignments and other surface activities so as to minimize impacts on sage-grouse." |
| 531       | Wildlife        | UDWR recommends that road realignment for sage-grouse and big game should not be evaluated as a compensatory mitigation credit (see page 4-116 of the DEIS), but should be considered as an example of BMPs, which should be considered by the appropriate road authority.  | The BLM recognizes the commenter's concerns regarding terminology. However, the BBC Wildlife Mitigation Plan is a voluntary component of the operators' Proposed Action and cannot be modified by the BLM.   |

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| Comment # | Topic/ Resource    | Public Comment  | BLM Response   |
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| 532       | Alternatives       | The alternatives should be revised to include potential development within Petro-Canada's leases within the WTP Project Area.   | <p>Some of Petro-Canada's proposed development is analyzed within the WTP EIS. The Petro-Canada's exploratory development projects located outside the WTP Project Area were considered within the RFD scenario included in the cumulative impacts analysis.</p> <p>It should be noted that Petro-Canada did not obtain leases within the WTP Project Area until the BLM was approximately 2 years into the EIS development process. To include new information each time it comes to light would render agency decision-making intractable, always awaiting updated information only to find the new information outdated by the time a decision is made.</p> |
| 533       | Cumulative Impacts | The cumulative impact analysis should be revised to include the Questar pipeline upgrade in Harmon Canyon.  | The Questar pipeline is accounted for the in the cumulative impact assessment.   |
| 534       | Wildlife           | The UDWR's crucial wildlife habitat data are available to the public on the UDWR web site: ( <a href="http://dwrcdc.nr.utah.gov/ucdc/DownloadGIS/disclaim.html">http://dwrcdc.nr.utah.gov/ucdc/DownloadGIS/disclaim.html</a> ) and should be considered under all EIS alternatives. These data and potential impacts to crucial deer and elk habitat should be considered under all alternatives. | <p>Section 3.9.2 of the EIS describes big game habitats in the WTP Project Area using UDWR wildlife habitat GIS data published July 1, 2006. Using these data, potential impacts to big game habitats are subsequently discussed in Section 4.9 under all alternatives in terms of potential loss or fragmentation of UDWR-identified habitats.</p> <p>To require the use of new wildlife habitat data every time new information comes to light would render agency decision-making intractable; the agency would always be awaiting updated information only to find the new information outdated by the time a decision is made.</p>                        |
| 535       | Wildlife           | Data included on page 3-91 of the DEIS are not current. Current data are as follows - official mule deer population estimate for April 2007 was 2,950 deer, which is 51 percent of the population objective. The buck/doe objective should be 15 to 20 bucks per 100 does, not merely 15 bucks/100 does.  | The referenced section of the EIS has been corrected.  |
| 536       | Wildlife           | Figure 3.9.1 in the DEIS was incorrect. The population objective was changed in 2004 from 6,000 deer down to 5,800 deer to account for the loss of habitat due to oil and gas development. This is stated in previous pages but is not reflected in the graph. Also the 2006 deer population was 2,800, and the 2007 deer population was 2,950.   | The referenced section of the EIS and Figure 3.9-1 has been corrected.   |
| 537       | Wildlife           | The 2nd paragraph on page 3-95 of the DEIS should mention that the elk objective will be proposed for change at the Utah Wildlife Board Meeting April 9, 2008. The new objective is 1,350 elk south of the Nine Mile Canyon Road and 250 elk north of the Nine Mile Road and west of the Argyle Canyon Road. Figure 3.9-3 should be updated to reflect this information.                          | The referenced section of the EIS and Figure 3.9-3 has been corrected.   |

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| 538       | Wildlife                 | The last sentence in the last paragraph on page 3-95 of the DEIS should read, "bighorn sheep have been documented using the lower reaches of Jack Canyon throughout the year and especially during lambing season. This area extends as far north as Horse Bench and Nine Mile Creek, to as far south as Flat Canyon."                | The referenced section of the EIS has been corrected.  |
| 539       | Wildlife                 | In the first paragraph of page 3-21, the term 'brooding habitat' for sage-grouse should be changed. It is crucial spring/summer/fall and sometimes winter range. The term 'brooding' refers to the period in mid-June and early July when chicks are coming off the nest.   | Section 3.10.3.2 of the EIS describes sage-grouse habitats in the WTP Project Area using UDWR wildlife habitat GIS data published July 1, 2006. Using these data, potential impacts to sage-grouse habitats are subsequently discussed in Section 4.10 under all alternatives in terms of potential loss or fragmentation of UDWR-identified habitats.<br><br>To require the use of new wildlife habitat data every time new information comes to light would render agency decision-making intractable; the agency would always be awaiting updated information only to find the new information outdated by the time a decision is made. |
| 540       | Recreation               | Bighorn sheep should be added to the list of species hunted in the project area. Hunting is allowed for both bighorn sheep and pronghorn in the area. The FEIS should also acknowledge that bighorn sheep hunting seasons begin in late summer and extend to January 31.  | The information provided has been incorporated into the analysis in Section 3.11.3.5.  |
| 541       | Wildlife                 | The analysis on page 4-116 should be revised to acknowledge that increased roads and infrastructure also indirectly increase access for poaching and harassing of wildlife as well as increased hunter access and success.  | The referenced section of the EIS has been corrected.<br><br>The impacts mentioned are also discussed in other resource sections within the EIS (see Section 4.11.1.2).  |
| 542       | Wildlife Mitigation Plan | The operator's wildlife mitigation plan should include bighorn sheep as one of the target species.  | See response to comment #564.  |
| 543       | Wildlife Mitigation Plan | The private AUMs owned by BBC in the Stone Cabin allotment (roughly 120 AUMs) will be reserved to provide private AUMs for elk. This needs to be articulated in this BBC Wildlife Mitigation Plan and WTP FEIS. See Nine Mile Elk Plan 2008.  | See response to comment #564.  |
| 544       | Wildlife                 | The information provided in the last part of the second paragraph on page 4-118 of the DEIS is not completely true. Dixie harrow projects remove only about 40 percent of the mature sagebrush cover. This will still result in suitable and in some cases improved habitat for sage sparrows, sage thrashers, and Brewer's sparrows. | The referenced section of the EIS has been corrected; discussion regarding potential loss of habitat for these species has been removed.   |



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|-----------|-----------------|--|---|
| 545       | Wildlife        | September - October is not calving season; it is the breeding season. Please correct this information (include on paragraph 3, page 4-122 of the DEIS).  | The referenced section of the EIS has been corrected.   |
| 546       | Wildlife        | The analysis on page 4- 124 of the DEIS should be revised to acknowledge that as Rocky Mountain bighorn sheep continue to expand their range northward, they will inhabit Nine Mile and Cottonwood Canyons where vehicle collisions would be a concern.  | The referenced section of the EIS has been corrected.   |
| 547       | Wildlife        | The information provided on pages 4-136 and 4-137 in the DEIS is incorrect. While all of the transportation reduction measures under Alternative C will reduce the effects to mule deer, it will not remove them altogether.   | The referenced section of the EIS has been corrected; specifically, references to impacts being “avoided” have been removed.  |
| 548       | Wildlife        | The information on paragraph 3 on page 4-165 of the DEIS is incorrect and should be updated in the FEIS. Numerous citations have linked oil and gas development to precipitous declines in sage-grouse populations. For example Holloran, 2005 University of Wyoming Dissertation; Doherty et al. 2006 JWM 72(1); Walker et al. 2006, JWM 7 1 (8); Lyon and Anderson 2003 Wildl. Soc. Bull. 3 1; and Crompton and Mitchell (2005 unpubl. report, Utah DWR) have all linked population reductions in response to development. Furthermore Walker et al. (2006) specified sage-grouse avoidance of oil and gas development specific to winter ranges. However, in addition, unpublished data exists which may alter these conclusions. | The referenced section of the EIS has been corrected to include the suggested information. It should be noted that two of the references provided had incorrect citation dates, which have been are updated in the text of the EIS. |
| 549       | Recreation      | The information on page 4-201 of the DEIS needs to be revised to reflect that hunt season dates extend from mid August in to late January. Furthermore, the DEIS states that hunting opportunity would not change because it is a limited entry unit; however, that is only true for bull elk and does not apply to general season buck deer hunters who may be impacted.  | A table has been added to Section 3.11 that shows the hunt season dates for various species within the WTP Project Area. The analysis in Section 4.11 has been modified based on this information.                                  |

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|-----------|--------------------------|---|---|
| 550       | Wildlife/ Figures        | Figure 3.10-2, Sage-grouse year-round and winter habitats should be updated with current UDWR data.   | <p>Figure 3.10-2 in the EIS describes sage-grouse habitats in the WTP Project Area using UDWR wildlife habitat GIS data published July 1, 2006.</p> <p>To require the use of new wildlife habitat data every time new information comes to light would render agency decision-making intractable; the agency would always be awaiting updated information only to find the new information outdated by the time a decision is made.</p>   |
| 551       | Alternatives             | UDWR requests specific information should be stated on the seed mix and grazing plan under the interim reclamation discussions in Section 2.1.4. It is inadvisable to graze during interim reclamation as seedlings are very sensitive and would have difficulty becoming established with grazing. Bare-root stock plantings of sagebrush may be better at establishing plants, although it is significantly more expensive and less efficient than properly designed seedlings. If there is a specified seed mix, it should also be stated in this section. | As discussed in Section 2.1.4 of the EIS, seed mixtures for reclaimed areas would be site-specific and would require approval by the BLM or UDOGM as appropriate. The BLM acknowledges that there is a possibility that grazing could negatively impact newly germinated revegetation species. Under Alternatives C, D, and E, the BLM has included disturbance thresholds. The goal of establishing surface disturbance thresholds is to ensure successful interim reclamation is achieved and to mitigate impacts to vegetation, soil, and water resources by re-establishing a vegetation community as soon as practical. In order to meet reclamation objectives and comply with the established thresholds, operators may have to consider fencing and/or other exclusionary measures. |
| 552       | Wildlife Mitigation Plan | Under BBC's Wildlife Mitigation Plan, UDWR recommends that road realignment for sage-grouse and big game should not be a compensatory mitigation credit, but should be considered as BMPs regularly enforced by the appropriate road agency.  | <p>Road realignments would be considered compensatory mitigation under BBC's wildlife mitigation plan, which they have voluntarily decided to include as part of their Proposed Action.</p> <p>Road realignments are considered a special protection measure to protect sage-grouse habitat within the WTP Project Area under the Agency Preferred Alternative. This measure would avoid impacts and therefore is not considered a form of compensatory mitigation.</p>   |
| 553       | Wildlife Mitigation Plan | There is ample acreage of pinyon-juniper both in the project area and Carbon County. UDWR strongly agrees with statements made in the DEIS that that the value of improving sagebrush habitat greatly outweighs the loss of some pinyon-juniper community.  | The statements referred to in the comment are carried forward into the FEIS.  |
| 554       | Wildlife Mitigation Plan | Within the BBC Wildlife Mitigation Plan, there needs to be a long-term commitment to properly manage grazing on the Stone Cabin allotment. Mitigation projects involving reseeding efforts will need to be rested from grazing for several growing seasons after treatments.  | See response to comment #564.   |

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| 555       | BBC Wildlife Mitigation Plan | There are discrepancies in long-term disturbance acres in BBC's Wildlife Mitigation Plan and the EIS. BBC notes their long-term disturbance acres as 2,080 (Appendix B, page 9). The EIS states the long-term disturbance acres as 1,864 (page 4- 117). UDWR acknowledges and appreciates that BBC has included a long-term disturbance acreage amount totaling more than that included in the EIS.  | The BBC Wildlife Mitigation Plan for Alternative A is a voluntary component of the operators' Proposed Action and cannot be modified by the BLM. The estimated disturbance in BBC's Wildlife Mitigation Plan was calculated by BBC prior to the final GIS-based disturbance estimations calculated by the BLM for the DEIS. The FEIS includes BLM's disturbance estimates. |
| 556       | Cumulative Impacts/ Wildlife | In Chapter 5 (pages 5-30 and 5-31) of the EIS Cumulative Impacts and Reasonably Foreseeable Development section, it states, "cumulative surface disturbance (and thus wildlife habitat loss) caused by oil and gas activity in the Price Field Office area would account for 17,951 acres. Natural gas development under this EIS Proposed Action would account for approximately 3,656 acres of this cumulative habitat loss to wildlife." Research shows that impacts to wildlife extend beyond well pads and roads. Long-term disturbance includes more than simply the acres directly developed, and should encompass indirect disturbance which lasts long after the planned development. | The EIS recognizes that habitat loss and displacement is not limited to actual areas of vegetation removed by surface-disturbing activities. Section 5.9 of the EIS has been modified to state the effective wildlife habitat loss would be greater than the estimated disturbance footprint due to displacement from, and avoidance of, disturbed areas.                  |
| 557       | Wildlife Mitigation Plan     | Page 1, bullet number 3 of BBC's Wildlife Mitigation Plan is incorrect. Numerous studies with sound statistical design have documented coal-bed natural gas development impacts to sage-grouse.  | See response to comment #564.  |
| 558       | Wildlife Mitigation Plan     | BBC's Wildlife Mitigation Plan: Page 2, Goals section. This section should also include bighorn sheep as one target species.   | See response to comment #564.  |

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| 559       | Wildlife Mitigation Plan | BBC's Wildlife Mitigation Plan: Page 3, Proposed Project Lands section. BBC intends to use BBC-owned lands for mitigation. It should be stated that these lands, in addition to surrounding BLM, State, and private lands, would be managed for mitigation. UDWR supports and appreciates the notion of using these lands for the benefit of wildlife. However, a concern is that these BBC properties are off site and BBC does not own the mineral leases. With that said, can they have a definite say in what happens on the property for the benefit or detriment to wildlife? It would be important to ensure that applicant-committed mitigation measures are (a) sufficiently implementable and (b) actually committed to in an enforceable NEPA decision document. | See response to comment #564. |
| 560       | Wildlife Mitigation Plan | Page 3, Mitigation Planning Process section. The mitigation planning process should be continued through the life of the project instead of a minimum of 10 years or 5 years after active development is completed. Disturbance is also present through the production phase of the project (Wyoming Game and Fish Department). Mitigation through the production phase would not be performed at the same magnitude as during development, however, it would serve a valuable purpose for wildlife needs as they continue to change over time, and as impacts continue to affect wildlife populations.   | See response to comment #564. |
| 561       | Wildlife Mitigation Plan | Page 5, Road Realignment section. The telemetry study funded by BBC did not end in 2006 but has continued through 2008. Figures 2 and 3 are referenced, but are not included in this document. We feel that road realignment should be considered a BMP and be a standard operational requirement by the BLM, and not a compensatory mitigation credit.   | See response to comment #564. |
| 562       | Wildlife Mitigation Plan | The Harmon Canyon (Prickly Pear) road re-route location should be reconsidered due to updated 2007 information showing that sage-grouse use the airstrip.   | See response to comment #564. |

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| 563       | Wildlife Mitigation Plan | Page 6, Habitat Improvement and Connectivity section. Figure 4 is referenced, but not included in the document. UDWR anticipates working with the BLM and BBC on this 1,500-acre habitat enhancement project. BBC is planning on conducting two separate projects on Sagebrush Flat and Prickly Pear mesas totaling 1907 acres in the 2008 season.   | See response to comment #564.  |
| 564       | Wildlife Mitigation Plan | BBC Mitigation Plan: These projects are from a past mitigation commitment for 3,700 acres. The UDWR appreciates BBC proposing these projects to the Utah Partners for Conservation and Development (UPCD), however, we want to ensure these projects are kept separate from the 1,500 acres proposed with the initial 30 percent mitigation in BBC's Wildlife Mitigation Plan  | The BBC Wildlife Mitigation Plan is a voluntary component of the operators' Proposed Action and cannot be modified by the BLM. Past mitigation commitments are kept separate from the initial 30 percent in the Agency Wildlife Mitigation Plan. |
| 565       | Wildlife Mitigation Plan | BBC Mitigation Plan: Page 6, Wet Meadow Summer Range Enhancement section. We recommend specifying which areas BBC is proposing to treat.   | While the location of some mitigation measures have been identified (e.g., road realignments and pinyon-juniper treatments), the specific locations for wet meadow/summer range enhancements have not yet been identified.                       |
| 566       | Wildlife Mitigation Plan | Page 7, Grazing Practices section. This section specifies 2 years rest during the '08 and '09 seasons, 1 year for past commitment and 1 year for the initial 30 percent mitigation. UDWR's understanding was that BBC committed 2 years rest as a past commitment. UDWR recommends this section state that a total of three years rest will be conducted: 2 years for past commitments for winter drilling, and 1 additional year for the initial 30 percent mitigation included in this wildlife management plan. | See response to comment #564.  |

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|-----------|--------------------------|--|---|
| 567       | Wildlife Mitigation Plan | We recommend that this section of the wildlife mitigation plan include that the other allotments under BBC control will be managed for wildlife through the same 3 years, and beyond, through appropriately designed grazing practices. The tools noted in the first paragraph of the "Grazing Practices" section, namely: "stocking rates, fencing needs, pasture rotation, salt placement, and spring and wetland protection" are considered regular grazing management practices that should logically and coherently be regulated by the BLM in order to maintain healthy rangelands that sustain all users, wildlife included. As such, these practices should not be proposed as mitigation measures. It is the BLM's stewardship and responsibility to ensure that their lands are naturally managed for multiple uses including Utah's wildlife. | See response to comment #564.   |
| 568       | Wildlife                 | We cannot reconcile the concept of drilling in the winter with the fact that Price BLM biologists argued in earlier environmental assessments that winter drilling would be disruptive to health of elk and other species.   | The comment does not provide sufficient information for the BLM to identify which NEPA documents or environmental assessments address disruptive health effects for elk. It is assumed that the comment refers to the WTP Drilling Program EA completed in 2004. This EA did not include environmental protection measures designed to avoid, minimize, and mitigate impacts of winter drilling that are contained in this EIS. Thus, within the aforementioned EA and its associated Decision Record, winter drilling was not included or approved as part of the proposed activity. The EIS contains a range of alternatives, some of which would prohibit winter drilling (Alternative D – Conservation Alternative). Furthermore, the FEIS discusses potential direct, indirect, and cumulative impacts of winter drilling on wildlife species in Sections 4.9 and 5.9. |
| 569       | Alternatives             | The DEIS fails to consider an alternative route that bypasses the rich cultural resources of Nine Mile Canyon. Neither of the two Bill Barrett contracted road engineering reports attempts to find an alternative to Nine Mile Canyon.  | See response to comment #34.  |
| 570       | Alternatives             | The failure to consider alternative access routes invalidate this DEIS and requires the development of a new EIS with an alternative which addresses this very important issue.  | See response to comment #34.  |

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### Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses

| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 571       | Alternatives    | It is not correct that a Trail Canyon access route would only provide transportation to Prickly Pear Mesa. Once on the mesa there are access routes from mesa to mesa. The eastern portions of the project are tied into each other via Class I and Class II roads. Only the Prickly Pear area in the west has no direct road access to the other mesas. However, there are unused road segments extending beyond the boundaries of the project area that would provide transportation routes to the other mesas from Prickly Pear. Thus it is feasible to have a single road cutting across Nine Mile Canyon that provides access to the full DEIS development area. | See response to comment #34.   |
| 572       | Alternatives    | When considering alternative access routes, it is not the job of the BLM to determine the economically viable location of oil well service companies. Rather it is to choose an alternative that best meets the multiple use needs of the public.   | See response to comment #34.   |
| 573       | Alternatives    | The concern of the BLM for safety on public highways is somewhat confusing. Highways actually constructed to move heavy vehicles? If the BLM is truly concerned about safety and road deterioration what could be worse than having heavy truck traffic on Nine Mile and Gate Canyon Roads (see description of roads in DEIS Appendix F 15-16).   | See response to comment #34.   |
| 574       | Alternatives    | Winter maintenance of the Bruin Point road is a moot point. The 9,000 foot elevation of the plateau requires all roads be maintained during winter months.  | See response to comment #34. Although it is correct that all roads will have to be maintained during the winter, it should be noted that the elevation of the WTP gradually rises from the north to the south. The majority of development is proposed near the southern end of the plateau in areas with an elevation which range between 6,000 and 7,500 feet. Bruin Point is located on the northern end of the plateau, and has an elevation over 10,000 feet. At higher elevations on the plateau, freeze conditions persist for a longer period and snow accumulations are greater, making winter road maintenance more difficult. It should also be noted that the difficulties of maintaining this route during the winter season is only one of the many reasons why the BLM eliminated the Bruin Point Route from detailed analysis (see Section 2.8.6). |
| 575       | Alternatives    | All access routes onto the mesa tops require engineering. The determination that the Bruin Point route would require "extensive" engineering is without any backup in the EIS. We can find no study of the viability of this route by either Bill Barrett contract study or the BLM's own study.  | See response to comment #1204.   |

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|-----------|-----------------|--|---|
| 576       | Alternatives    | The concern that the Bruin Point Route would impact big game and sage-grouse is a red herring. The BLM should consult their own maps especially 3.9-2; 3.9-4; 3.9-6; 3.10-2, and realize that these alternatives already provide huge impact and access to sage-grouse and big game species and habitat.   | See response to comment #34. The BLM and its Cooperating Agencies have developed a reasonable range of alternative that directly respond to a variety of resource issues that were identified during the public and internal scoping process. Alternatives to the Proposed Action were developed so as to allow for full field development while minimizing impacts to various public lands resources that must be managed by the BLM under their multiple use mandate. Each of these alternatives contains a variety of measures that are intended to mitigate impacts to wildlife as well as other resources. While it is true that each of the alternatives would result in impacts to big game and sage-grouse habitats, construction of the Bruin Pointe Route would clearly magnify impacts to these species. In addition, it should be noted that impacts to wildlife were only one of many reasons, which led the BLM to eliminate the Bruin Pointe route from detailed analysis. |
| 577       | Alternatives    | We note that access to the Green River corridor may be a moot point based on the EIS, which states, "Under the Proposed Action, upgrades to Horse Bench road would end outside of the NHL boundary, but would allow vehicles to gain easier access to overlooks into Desolation Canyon, and potentially travel the entire length of this unmaintained route through the NHL to its intersection with Nine Mile Canyon" (DEIS 4-363).   | See response to comment #34.<br><br>Potential increased OHV use along what is currently and would remain as an unmaintained two-track route through the NHL would not result in impacts comparable to those that would occur if the existing primitive two track road were upgraded to a standard that could accommodate the amount of industrial traffic that would be associated with full field development. In addition, it should be noted that under Alternatives C and D, the Horse Bench road would be gated to prevent increased OHV use in this resource sensitive area.  |
| 578       | Cultural        | No alternative considers the implications to archeological resources due to significant increase in vehicular use within Nine Mile Canyon and surrounding region associated with oil and gas development.  | See response to comment #217.<br><br>The Transportation Impact Reduction Alternative was developed to specifically respond to transportation related concerns identified by the public during the scoping process, which included the adverse impacts that increased traffic could have on recreation and natural and cultural resources (See Section 2.4). In response to public comments received on the DEIS, the BLM is not considering construction and use of a new route through Trail Canyon under this alternative.  |
| 579       | Cultural        | There has been no complete inventory and assessment of archeological sites within the canyon, tributaries or area, their proximity to roads, the amount of dust accumulating on these sites, the impacts of dust as an airborne scouring agent on the sites, the impacts of dust on the visibility of the panels, the impact of dust and dust suppression chemicals and vehicle exhaust on the integrity of the rock art panels, the impact of dust suppression chemicals and vehicle exhaust on the ability to retrieve scientific information from rock art panels, or the impact of vehicle vibrations on the integrity of rock art panels. | See responses to comments #36 and #1240.  |
| 580       | Alternatives    | The expansion of energy development should be halted until alternatives are implemented which protect the cultural resources of Nine Mile Canyon.  | See responses to comments #3 and #217.  |



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| Comment # | Topic/ Resource        | Public Comment   | BLM Response  |
|-----------|------------------------|--|---|
| 581       | Cultural               | The BLM has failed to present an alternative which would protect known NRHP eligible sites.  | See response to comments #3 and #217.   |
| 582       | Cultural               | We have reviewed Table 4.12-1 and note that the following rock art sites are at the same location: 42Cb0053(66), 42Cb0069, 42Cb00132, 42Cb00133, and 42Cb2160. The BLM should determine if there are alternatives that would allow for pipeline development without impact to these sites.                               | It is clearly discussed through the EIS that the proposed location of all facilities illustrated on Figures 2.2-1 - 2.2-6 are conceptual.<br><br>If the BLM decides to approve the proposed WTP natural gas full field development project, the BLM would be required to review and act on SUPs, which are an integral component of APDs and ROW applications, which seek approval to construct pipelines, drill pads and roads, or other ancillary facilities associated with project development. Submission and approval of such applications are required prior to surface disturbance. |
| 583       | Cultural               | A Class II intuitive survey should be conducted in areas of Nine Mile Canyon, side canyons, and the WTP that have not previously been surveyed and that the results of this survey should be combined with current archeological data in making appropriate planning decisions.  | See response to comment #1228.  |
| 584       | Cultural               | The DEIS proposal to only conduct cultural surveys (as defined in Appendix N) within 10 acres of each well pad, 5 to 10 acres around other facilities, and a 300-foot corridor along new roads and pipelines is insufficient based on the indirect impacts that can be reasonably expected from the drilling activities. | Class III inventories, avoidance measures (relocating, rerouting, and fencing), archaeological monitoring in culturally sensitive areas, and the ability to address unanticipated discoveries suggest that the current inventory standards are adequate for the purposes of analysis of potential impacts and informed decision making.<br><br>Also see response to comment #913 and #1228.   |
| 585       | Cultural               | The DEIS ignores the fact that the drilling program will bring millions of person days of activity to what has been a previously isolated area.  | The impacts to cultural resources within the WTP Project Area that could occur as a result of increased human activity are discussed in Section 4.12.1.2.   |
| 586       | Cultural               | Worker housing located on the plateau will serve as a base for free time exploration activities by workers.  | See response to comment #1229.  |
| 587       | Cultural/ Recreation   | The development and improvement of roads in the area will allow much greater public access.  | The impacts of increased access into portions of the WTP Project Area that were previously inaccessible are discussed in Sections 4.11 and 4.12. It should be noted that under Alternatives C, D, and E, some roads would be gated (see Sections 2.4.1.1, 2.5, and 2.6.1.2) to limit public access in areas that are currently inaccessible.  |
| 588       | Alternatives           | It is unclear why these airstrips should be necessary under any of the alternatives other than Alternative C.  | Use of aerial transportation has the potential to reduce the volume of project-related traffic and correlating impacts on natural and cultural resources. See response to comment #476.   |
| 589       | Alternatives           | Problematically, the DEIS does not discuss the location the proposed airstrips.  | See response to comment #1232.  |
| 590       | Cultural               | The DEIS does not specify the number of turnouts or where they will be located. As a result, we believe this gesture will not significantly impact visitor safety.   | See response to comment #1233.  |
| 591       | Alternatives/ Cultural | A stipulation of this project should be that workforce housing not be allowed anywhere in Nine Mile Canyon.  | No workforce housing is proposed in Nine Mile Canyon under any alternative.   |

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| Comment # | Topic/ Resource              | Public Comment  | BLM Response   |
|-----------|------------------------------|---|--|
| 592       | Cultural/ Visual/ Recreation | There is little commentary in the DEIS regarding potential wells within Nine Mile Canyon itself. However, we note that the various project maps include several well sites within the canyon. Wells within the canyon have a dramatic impact on the viewshed and visitor experience of the canyon. In addition, the maps indicate two pumping stations to be located within the canyon. These wells and pumping stations are being presented as part of an overall project to be considered by the BLM. The BLM needs to consider the impact of these wells and pumping stations and their cumulative impact on the entire project. | See responses to comment s #753 and #1201.   |
| 593       | Alternatives/ Figures        | Land ownership associated with the wells and pumping stations in Nine Mile Canyon is not clear.   | See responses to comments #753 and #1201.  |
| 594       | General/ Alternatives        | The Dry Canyon compressor station should be relocated to the plateau.   | The existing Dry Canyon compressor station is located on private lands owned by BBC and is permitted by the UDAQ. The BLM has no authority to require relocation of the compressor station to the plateau. |
| 595       | General                      | If the intent of the BLM is to protect the Green River corridor and Desolation Canyon NHL, why were they included in the project boundaries? The project boundaries should be redrawn to remove the potential for development along the Green River corridor and Desolation Canyon NHL.   | See response to comment #1237  |
| 596       | Cultural                     | There is no consideration of the archeological resources in the Green River wild and scenic corridor.   | There is no direct or indirect impacts to cultural resources associated with the Green River wild and scenic corridor.   |
| 598       | Cultural                     | The BLM indicates that: "Anticipated indirect impacts to cultural resources include the accumulation of dust and its impact on rock art, the impact of vibration and project-related erosion on cultural resources" Our observation, after many trips to the canyon, is that these impacts are direct.  | See response to comment #1238.   |
| 598       | Cultural                     | A more comprehensive study of the impact of dust, dust suppression chemicals, vehicular exhaust, and vibration must be done in addition to a baseline archeological report along the proposed transportation route.   | See response to comment #1240.   |
| 599       | Dust Study                   | The final results of the Silver study need included in the EIS.   | See response to comment #53.   |

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|-----------|-----------------|--|---|
| 600       | Dust Study      | Constance Silver is a qualified rock art conservator. However, she is not qualified to assess the effects of chemical agents (magnesium, diesel exhaust, etc.) on the various sandstone formations on which the rock art is located. This requires the expertise of a geochemist.  | The BLM agrees with the commenter. However, it should be noted that the field study was designed and results were interpreted by EMSL, Analytical, Inc., who has a professional staff which includes a geologist, as well as other individuals with appropriate resource expertise. The Final Dust Study, which has been included in the FEIS has also been peer reviewed by a geochemist.<br><br>Also see response to comment #1240. |
| 601       | Dust Study      | With regards to the discussion on DEIS Appendix G p 32-33 regarding the damage to a limestone frieze in New York and the statement that it cannot be proved that particulate magnesium chloride (MgCl <sub>2</sub> ) landing on a rock art panel in Nine Mile Canyon will produce the same damage, it should be noted that limestone consists principally of calcium carbonate. Sandstone consists principally of quartz grains cemented together with calcium carbonate -- limestone. If MgCl <sub>2</sub> damages limestone in a frieze, it will also damage sandstone in a rock art panel. It is hydroscopic no matter where it is. | See response to comment #1053.  |
| 602       | Dust Study      | The discussion on pages 6, 21, and elsewhere within Appendix G, of the disappearance of magnesium is evidence of Constance Silver's lack of understating of chemical principals and of the basics of ionization of salts in water. When MgCl <sub>2</sub> and/or magnesium oxide (MgO) is placed on roads, it is usually mixed with lots of water and sprayed on. This is necessary so that it can soak in and harden the road base to a maximum depth. A thin surface coating would have little effect and would soon be broken up.   | See response to comment #1242.  |
| 603       | Dust Study      | The dust that is adversely affecting the rock art in Nine Mile Canyon is not simply small particles of dirt. It includes aggregates of numerous chemicals from diesel exhaust from heavy trucking activity, road treatment chemicals, and effluents from compressor stations. To understand the impact of the chemicals on rock art requires the expertise of a chemist.   | See responses to comments #1240 and #1243.  |
| 604       | Dust Study      | A literature review is not a replacement for a trained chemist or geochemist.  | See responses to comments #600 and #1243.   |

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|-----------|-----------------|--|--|
| 605       | Dust Study      | Page 18 of appendix G assumes that sections of the road were treated with MgCl <sub>2</sub> . Information on exactly what sections of the road had been treated should have been obtained instead of just making an assumption. This information should have been acquired before the dust study was commenced. The County or BBC should be contacted to make this determination.  | See response to comment #1244.   |
| 606       | Dust Study      | The presence of photographs showing the effects of dust on rock art sites should not be ignored just because they do not provide an analytical particulate baseline. An immediate photographic study and monitoring activity should be conducted as well, and it should include more than just five sites.   | See responses to comments #3, 21, and 35.  |
| 607       | Dust Study      | Another study needs to be done, or the present one expanded, to provide information on the impacts from vehicle exhaust and emissions from other facilities on the rock art, and recommendations for a course of action to protect the rock art of NMC.  | See responses to comments #1240 and #1243.   |
| 608       | Dust Study      | The dust study has little information on the effect the dust is having on pictograph panels.   | Pictographs are less common than petroglyphs within the WTP Project Area; however, it should be noted that two of the five sites evaluated in the field sampling study (the Hunt Scene and Rasmussen Cave) contain both pictographs and petroglyphs. Therefore impacts that dust is having on pictographs was taken into consideration. The dust study does not explicitly differentiate between these forms of rock art; however, should conservation treatments be determined to be necessary appropriate techniques would be applied. |
| 609       | Dust Study      | Given the presence of magnesium chloride, magnesium and/or chloride in all samples tested, Silver's conclusions about the equivocal nature of the data should be rejected. Also suspect is her statement that "there is no proof at present that magnesium chloride used for dust abatement in Nine Mile Canyon has – or will – become a vector of deterioration for the canyon's resources" (Appendix G:33), in light of her statements that magnesium chloride is a "documented agent of deterioration of concrete and works of art" (Appendix G:1) and that agencies, organizations and scientists are raising concerns about magnesium chloride (Appendix G:32). | See responses to comments #1242, #1243, #1053, and #651.   |
| 610       | Dust Study      | URARA concurs with that DEIS additional studies into dust abatement technologies are warranted, and that impacted sites need to be identified and evaluated (Appendix G:34).   | Comment noted. Additional research has been included as a stipulation under the WTP Programmatic Agreement.  |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
|-----------|-----------------|--|--|
| 612       | Dust Study      | The DEIS fails to identify strategies whereby additional research goals recommended by Silver in the dust study will be achieved, nor does it specify a timetable wherein the research would be conducted, reported, and recommendations implemented.  | The dust study has been revised to include additional recommendations to those that were included in the DEIS. Based in part on recommendations from the dust study, the EIS now includes a long-term dust suppression plan (Appendix R). The Programmatic Agreement for the WTP Project includes a stipulation requiring BBC and other operators to begin additional research with 6 months of project authorization.   |
| 613       | Dust Study      | Disconcerting is the absence of interim strategies to protect rock art panels while scientific studies are underway, which appears to be a de facto acknowledgment by the BLM that current dust-abatement methods are sufficient until such time that future research demonstrates otherwise.  | See responses to comments #971 and #651.<br><br>Since publication of the EIS, the BLM has developed interim strategies in cooperation with Carbon County, operators, and other interested parties to reduce dust within Nine Mile Canyon. Since 2008 BBC and Carbon County have been applying dust suppressants to certain roads in the WTP Project Area to minimize the amount of fugitive dust. Under all alternatives, BBC and other operators would be required to control dust. |
| 614       | Cultural        | Ongoing site condition assessments in the Cottonwood Canyon confluence area (CPAA report inpreparation) suggest the number of sites impacted by significant dust accumulation could be substantial, particularly in those areas where the road abuts the canyon wall. Preliminary data suggest that rock art sites within 30 meters horizontal and 30 meters vertical of an existing road have been severely impacted by dust accumulation, often to a point where images are no longer visible or are barely discernible. Dust accumulation was observed at many sites up to 50 meters from an existing road, but not all sites. Evidence of dust accumulation at sites located beyond 50 meters from a road is more equivocal. The problem is particularly evident at those site locations where the rock art is located below and within overhangs that block rising dust plumes and redirects the rising plumes downward, coating the panels a second time. Also particularly vulnerable are rock art sites on sloping surfaces of less than 90 degrees. | The information provided by CPAA has not been provided to BLM; however, these findings appear to be consistent with those included in Appendix G (Dust Study). Under all alternatives BBC and other operators would be required to suppress dust in Nine Mile Canyon. As part of the Programmatic Agreement BBC and other operators would also be required to remove dust from panels previously impacted in the canyon and monitor impacts to a sample of cultural sites.           |
| 615       | Cultural        | The EIS should more accurately reflect that dust accumulation is a direct impact to cultural resources, primarily rock art sites and historic signatures, and that these impacts will be thoroughly mitigated through Section 106 compliance.  | See response to comment #1238.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                                    |
|-----------|-----------------|---|---|
| 616       | Cultural        | Dust abatement studies recommended by Silver, including the corrosive nature of magnesium chloride and related technologies, should be required and completed prior to implementing any dust abatement measures with materials other than purified water.   | See responses to comments #17, #651 and #971.   |
| 617       | Cultural        | The FEIS should clearly require dust abatement measures and that operators will be accountable for compliance with these measures.  | See response to comment #651.                   |
| 618       | Cultural        | Additional baseline site condition assessments should be conducted to identify and evaluate those sites impacted by dust accumulation, and to determine the spatial extent of the dust problem.   | See Responses to comments #3 and #35.           |
| 619       | Cultural        | The EIS should articulate a requirement that periodic and consistent audits of site conditions will be conducted at those localities where National Register-eligible cultural resources are vulnerable to dust accumulation to monitor site degradation over the life of the project.  | See responses to comments #3, #21, #35.         |
| 620       | Cultural        | The EIS should be augmented to include a more thorough and thoughtful analysis by transportation engineers of potential options wherein dust impacts to cultural sites could be avoided entirely. This analysis should include an examination of potential re-routing of the existing road away from vulnerable and high-density cultural resources, an examination of new access routes through side canyons without a significant density of significant sites, and upgrades to existing routes that bypass Nine Mile Canyon.   | See responses to comments #1 and #34.           |
| 621       | Cultural        | In light of (a) public concerns over dust in Nine Mile Canyon, both from cultural resource protection and public safety perspectives, (b) the BLM's stated preference to utilize the Nine Mile Canyon corridor, and (c) the likelihood that scientific studies on dust abatement issues will not generate consensus for many years, CPAA recommends that all portions of the Nine Mile Canyon Road and project roads in major tributary canyons be paved in those areas where rock art panels and historic inscriptions are located within 50 meters horizontal distance from the outer edge of the road ROW. | See responses to comments #651, #905, and #217. |

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| Comment # | Topic/ Resource                    | Public Comment  | BLM Response  |
|-----------|------------------------------------|---|---|
| 622       | NEPA/ Consultation                 | The Price Field Office failed to involve important and interested parties in planning decisions.  | See responses to comments #8 and #10.   |
| 623       | NEPA/ Consultation/ Cultural       | Up-front consultation with interested parties is a statutory responsibility. 36CFR800.2(5)(d)(1) states "The views of the public are essential to informed Federal decision making in the Section 106 process. The agency official shall seek and consider the views of the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties."  | See responses to comments #8 and #10.   |
| 624       | NEPA/ Cumulative Impacts/ Cultural | The piece-meal approach that the BLM has taken to development proposals fails to give an informed picture of the impact of energy development on Nine Mile Canyon and tributaries. For example, this DEIS is treated separately from the Questar Gas Pipeline, Petro-Canada development proposals, Jakes Oil proposal, and Oil Shale PEIS. There has been significant development in the region in the past few years and we expect there will be even more in the future, none of which is being planned nor presented to the public in a coordinated fashion that demonstrates cumulative adverse impacts on rock art and other cultural resources of the area. | The WTP EIS analyzes the direct and indirect impacts associated with full-field development on the WTP Project Area, which includes potential development on leased lands held by other operators as well as potential development on unleased lands, which could be leased in the future. Cumulative impacts from relevant past, present, and reasonably foreseeable future actions that would cause impacts on the same resources and uses as the Proposed Action and alternatives are discussed in the cumulative impacts analyses in Chapter 5 of the FEIS. |
| 625       | Cumulative Impacts                 | It is impossible to assess the alternatives within the DEIS without understanding the cumulative impacts of all of the development proposals within the region. Before any additional oil and gas development is allowed on the Tavaputs Plateau an EIS should be prepared that takes into account the cumulative impacts of all of these developments.   | See response to comment #624.   |

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| Comment # | Topic/ Resource        | Public Comment   | BLM Response                                    |
|-----------|------------------------|--|---|
| 626       | Alternatives/ Cultural | The issues regarding paving of the Nine Mile Canyon Road are complex. On one hand, paving the road will reduce dust and vibration that impact cultural resources. It will also make access to the canyon more viable for the recreational user. On the other hand, paving is expensive, will likely impact cultural resources during the rebuilding of the road, will increase speed along a road that will still be narrow and twisty, and will provide increased access to cultural resources with no plan for their protection. The DEIS should have considered these difficult issues and provided information and an alternative that addresses them. Until the EIS addresses these issues, it will be incomplete.  | See response to comment #1248.                  |
| 627       | General                | URARA hereby endorses, and incorporates by reference, the recommendations of Jerry Spangler of the CPAA with regards to the DEIS.  | See responses to comments #834 and #866.        |
| 628       | NEPA/ Cultural         | The DEIS fails to provide any alternative that meets the multiple use mandate of the BLM, specifically the BLM's responsibility to protect cultural resources.   | See response to comment #217.                   |
| 629       | NEPA                   | The failure to plan for cultural resources mandates the development of a new EIS.  | See responses to comments #217 and #1316.       |
| 630       | Alternatives           | If a viable bypass route cannot be found then an alternative should include a comprehensive study analyzing the proximity of archeological sites to roads, the amount of dust accumulating on these sites, the impacts of dust as an airborne scouring agent on the sites, the impacts of dust on the visibility of the panels, the impact of dust and dust suppression chemicals and vehicle exhaust on the integrity of the rock art panels, the impact of dust suppression chemicals and vehicle exhaust on the ability to retrieve scientific information from rock art panels, or the impact of vehicle vibrations on the integrity of rock art panels. Appropriate mitigation plans will need to be implemented. Transportation implications would have to result based on the results of the studies. | See responses to comments #36, #1243 and #1240. |



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| Comment # | Topic/ Resource        | Public Comment   | BLM Response  |
|-----------|------------------------|--|---|
| 631       | Alternatives           | If a viable bypass route cannot be found, then an alternative should include all of the transportation reduction options noted in Alternative C with the exception of the use of aerial transportation.  | See response to comment #217.   |
| 632       | Alternatives           | If a viable bypass route cannot be found, then an alternative should include road turnouts developed to provide for the safety of recreational visitors to the canyon.   | See response to comment #217.   |
| 633       | Alternatives/ Cultural | Cultural baseline surveys must be done throughout the region to reflect the massive influx of people associated with the project and the improved access to the public.  | It is unclear how baseline surveys would "reflect" an influx of people. However, based on the BLM's interpretation of the comment, see response to comments #3, #35, and #1312.<br><br>Furthermore, within the range of alternatives considered within the EIS, the BLM is considering gating of both existing and proposed roads to restrict public access, thus reducing potential illegal theft or vandalism of cultural resources.  |
| 634       | Alternatives/ Cultural | Planning associated with the location of well pads, worker housing, pipelines, and facilities must reflect actual cultural resource data and should avoid NRHP eligible sites.   | Cultural resource inventories conducted in advance of individual APD and other permits would allow for adequate planning to avoid cultural resources determined eligible to the NRHP, determine any associated direct and indirect impacts to the identified resources, and mitigate any potential impacts prior to ground disturbance activities. The preconstruction cultural resource identification plan (Appendix N) outlines the procedures for the identification, evaluation, management, monitoring, and mitigation (if necessary) of cultural resources in the WTP Project Area for each disturbance. |
| 635       | Alternatives           | The boundaries of the proposed project should exclude the Green River corridor and Desolation Canyon NHL.  | See response to comment #1237.  |
| 636       | Alternatives           | There should be no expansion, and preferably relocation, of the Dry Canyon compressor station.   | See response to comment #594.   |
| 637       | Alternatives/ Cultural | There should be no surface occupancy within Nine Mile Canyon other than that which has already been developed.   | See responses to comments #753 and #1201.   |
| 638       | General                | Carbon County supports the WTP Natural Gas Full Field Development Plan as contemplated by Alternative E, "the Agency Preferred Alternative," subject to the information and recommendations set forth in the remaining Carbon County comments, which should be incorporated into the FEIS. | Carbon County's support for the project has been described in the "Consistency with State and Local Planning" section of Chapter 1 in the FEIS.   |

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| Comment # | Topic/ Resource              | Public Comment  | BLM Response  |
|-----------|------------------------------|---|---|
| 639       | Alternatives/ Transportation | Several of the road management proposals in some alternatives fail to accommodate Carbon County's interests and needs in its transportation system. These road management proposals risk impairing Carbon County's broader transportation interests in facilitating search and rescue, providing access to other authorized resource users, and in providing recreational and grazing/logging/mineral management access (i.e. open public use).   | As noted, seasonal and permanent road closures are considered within the range of alternatives presented in the EIS to protect certain resources and to reduce transportation impacts. However, no decision has been made as to whether an alternative containing road closures will be the selected alternative.   |
| 640       | Transportation               | The FEIS should recognize and reveal for a more informed decision that easements with a designated width and scope on county public roads in this area crossing SITLA lands has been purchased by Carbon County in perpetuity and are being maintained according to our standards under State statute.  | The EIS recognizes that easements have been purchased by Carbon County for multiple segments of road in the WTP Project Area (see Section 3.14.2). It should be noted, that this information came directly from the County. Previous correspondence on this subject was cited within the EIS.   |
| 641       | Transportation               | Since the DEIS was published, Carbon County has acquired Title V acquiescence to a series of prior-existing public roads in the Tavaputs natural gas field area from the BLM. This action on the part of Carbon County has enabled BLM to recognize the County's existing authority and responsibility to manage and maintain these routes.   | <p>Since Carbon County submitted comments on the DEIS they have voluntarily relinquished their acquired Title V ROWs. BLM recognizes that Carbon County has demonstrated an interest in acquiring Title V ROWs to a network of BLM system roads in the WTP area. As ROW applications are submitted on these roads, BLM will evaluate them in compliance with NEPA, complete necessary consultations, and make a decision on the issuance of grants to these roads on a case-by-case basis. Any ROW grants issued by the BLM would include stipulations, including maintenance requirements and standards, sufficient to address resource issues and concerns.</p> <p>No court or federal agency has issued a final, binding determination that Carbon County possesses R.S. 2477 rights-of-way for any Class B or Class D road in the WTP project area. The BLM cannot recognize Carbon County's alleged R.S. 2477 rights unless and until the validity of such rights is proven in a court of law.</p> |
| 642       | Transportation               | A maintenance agreement under County Ordinance #378 is in force and has been implemented between the county, BBC, and also Petro Canada for the WTP Project Area. Any additional users, proposing to place extraordinary uses to Carbon County managed public transportation routes, are required to apply for, acquire and adhere to the requirements of County Ordinance #378. In doing so, the obligations under the Ordinance will be spread out to all users appropriately, creating a fair structure for Carbon County to adjudicate management responsibilities and costs. | The DEIS clearly discloses that Carbon County has implemented County Ordinance #378 and that BBC has entered into a maintenance agreement with the County for roads in the WTP Project Area in Section 4.14.2.2, as well as Appendix F-Transportation Plan.   |

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| Comment # | Topic/ Resource                           | Public Comment  | BLM Response   |
|-----------|---|---|--|
| 643       | Alternatives/<br>Transportation           | If Carbon County transportation system roads are to be improved or realigned, Carbon County requires that notice of such proposals be brought forth to proper County Authority to allow county transportation personnel to provide input regarding the proposed construction or improvement and in some areas ensure that proper engineering standards are met. | See response to comment #641. Should Carbon County acquire Title V ROWs to individual BLM system roads in the WTP area, the BLM would follow the proper procedure to ensure adequate county involvement.   |
| 644       | Alternatives/<br>Transportation           | If a Carbon County road is to be realigned, and the former roadway is to be reclaimed, Carbon County would require that a FLPMA Title V ROW or appropriate easements or fee title rights be given to Carbon County for the realigned portion enumerating a width consistent to that already granted on the adjacent road segments.                              | See response to comment #641. Should Carbon County acquire Title V ROWs to individual BLM system roads in the WTP area, the BLM would follow the proper procedure to ensure adequate county involvement.   |
| 645       | Alternatives/<br>Transportation           | On existing roads now under the authority of Carbon County, operators would not be required to submit a ROW application to BLM to maintain these roads. An encroachment permit as issued from Carbon County would be required to meet the criteria of Ordinance #378.   | See response to comment #641. Should Carbon County acquire Title V ROWs to individual BLM system roads in the WTP area, operators would be required to meet the criteria of Ordinance #378. However, under the current management conditions, operators would be required to submit a ROW application to the BLM for use of WTP Project Area roads. Operators would also be required to maintain these roads in accordance with the conditions of the application. |
| 646       | Alternatives/<br>Transportation/ Land Use | Approval to construct a pipeline, well pad, road, or ancillary facility located on BLM-administered lands outside of the lease or unit could require an encroachment permit from the County if it were to be buried within the county road ROW.   | See response to comment #641. Should Carbon County acquire Title V ROWs to individual BLM system roads in the WTP area, operators would be required to meet the criteria of Ordinance #378.  |
| 647       | General                                   | A GPS location record would be required to be given to the Carbon County GIS department in a proper electronic format for data collection and recording purposes for all new road segments, pipelines, well pads, or ancillary facilities located on BLM-administered lands.  | The BLM would work cooperatively with Carbon County to make sure they have necessary information as they have done in the past, and as they are currently doing.   |
| 648       | NEPA                                      | ACEC designation should not be a determining factor of the EIS since it is a land use decision yet to be made in the Price RMP.   | The DEIS contained a wide range of alternatives to assure that this full field development plan would not preclude the BLM from designating the potential Desolation Canyon and Nine Mile Canyon ACECs during the land use planning process. The FEIS recognizes that ACEC determinations made in the Price Field Office Record of Decision and Approved Resource Management Plan.   |

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| Comment # | Topic/ Resource              | Public Comment   | BLM Response  |
|-----------|------------------------------|--|---|
| 649       | Cultural                     | All of the cited direct, indirect, and cumulative impacts to petroglyphs, pre-historic, and historic resources in the WTP Project Area due to increased traffic, noise, and infrastructure has continually increased, even prior to BBC's presence in the Canyon. The attention brought to this area by activist groups has also increased visitor traffic, which has increased trespass, resulted higher speeds on the roads, as well as parking and congestion problems on Nine Mile Canyon and Cottonwood Roads. The EIS should be revised to reflect that impacts to cultural resources are a result of all public land users, not just oil and gas. | The EIS notes that impacts to cultural resources, in some instances, are not relegated solely to natural gas exploration and production. However, as discussed in Sections 4.11 and 4.13, it should be noted that there is evidence suggesting that ongoing oil and gas development has resulted in a decrease in recreational traffic rather than an increase. In addition, the purpose of the EIS is to analyze the direct, indirect, and cumulative impacts associated with potential oil and gas development.   |
| 650       | Cultural                     | The Nine Mile Canyon Historic District proposed designation should not be considered as a part of any cumulative impact on this proposed project.  | See responses to comments #1310.  |
| 651       | Alternatives/ Transportation | The FEIS should address that Carbon County has formed a Board to specifically identify and recommend effective, environmentally responsible dust suppressants for the WTP Project Area.  | <p>The FEIS has been modified to recognize the formation of the Nine Mile Canyon Road Cooperative Board. The goal of the Board is to develop and recommend a long-term plan to improve and maintain Nine Mile Canyon Road.</p> <p>In response to public comments received on the DEIS, and at the request of the Nine Mile Canyon Road Committee, BBC has prepared a dust suppression plan for the WTP Project Area (see Appendix R). As described in the dust suppression plan, testing was conducted on sections of roadway using various dust suppressant materials. Each of the tested materials was non-toxic, non-corrosive, and non-carcinogenic according to published data. Under Alternative E and the WTP PA (Appendix T), BBC, Carbon County, and Duchesne County have agreed to discontinue the use of magnesium chloride as a form of dust suppression within canyon bottoms in the APE unless scientific research demonstrates there are no negative effects on rock art. In addition, under Alternative E and the WTP PA (Appendix T), enhanced dust suppression with alternative suppressants would be required throughout the revised APE, which is larger in size than the Project Area. Since completion of the dust suppression plan in 2008, Carbon County and BBC have been using lignin sulfonate in the WTP Project Area. The FEIS has been revised to discuss potential impacts associated with use of this material.</p> |
| 652       | Floodplains/ Riparian        | Since very little development is planned in or around any floodplains, and any that there are adequate setback requirements and standard pad construction protocol in place to mitigate this issue, negative impacts to the proper functioning condition of floodplains is not relative to this DEIS.  | Impacts to floodplains are appropriately addressed within the EIS. Under all alternatives, there would potentially be some development within floodplains, as well as substantial increases in industrial traffic in canyon bottoms. The proposed project has the potential to increase sedimentation and potentially change the flow regime within Nine Mile Creek. Both of these impacts could have negative impacts on floodplains by increasing sediment delivery and possibly leading to erosion of the channel banks along Nine Mile Creek.   |
| 653       | Water                        | Any water used for dust suppression and drilling/completion will be from a water right that was granted to BBC for that particular purpose. After reviewing the impacts on water rights in the area, it appears that beneficial use will not be impaired.  | The comment is correct that water use for dust suppression and drilling/completion activities were granted specifically for oil and gas operations. However, beneficial use classes could still be impacted by water depletions and increased sediment loading to WTP Project Area streams.   |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response   |
|-----------|----------------------|--|--|
| 654       | Special Designations | Although development within WSAs and areas with wilderness characteristics has the potential to impact the wilderness values of Jack and Desolation Canyons, prior existing rights for energy development take priority. Since wilderness designation would not affect pre-existing Federal leases or any State leases, development of these leases is reasonably foreseeable and was anticipated by Congress.   | Valid and existing lease rights within WSAs and WIAs are discussed in Section 3.17.  |
| 655       | Special Designations | Since the premise of Alternative E is to disturb no more than necessary, while understanding energy development is an important use of this area; why not initially allow the numbers given for the pads and acres in the present Alternative E as a starting point, then stipulate in a revised Alternative E, that if the geology and science supports the need for additional drilling, the numbers in Alternative A would be allowed as a maximum to this EIS? If this were to be added into a revised Alternative E as part of the Agency Preferred Alternative, in the FEIS document, NEPA would be satisfied and fulfilled, and BLM would have a flexible option allowing more development, but only if scientific data supported it. | See response to comment #217.<br><br>As discussed in Section 2.6.1.3, the BLM would limit surface disturbance within WSAs so long as it does not preclude the development of valid and existing rights. The BLM would have the suggested flexibility under the Agency Preferred Alternative. |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response   |
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| 656       | Special Designations | The Jack Canyon WSA was not found to be suitable for wilderness consideration. It therefore was not recommended for Wilderness in BLM's 1992 submission to Congress. In the report to Congress, it stated that even though wilderness characteristics existed within Jack Canyon, the potential for energy development, specifically oil and gas development was of greater importance than its use for Wilderness. Also, as the GIS-based fragmentation analysis revealed that approximately 5,853 acres of the Desolation Canyon WSA are within ½-mile of existing roads. We submit to you that upon designation the outstanding opportunities for solitude within this portion of Desolation Canyon was already compromised and the FEIS should be revised to include this information. | <p>Section 3.17.2 states:</p> <p>The Jack Canyon WSA was not recommended for wilderness designation in the Utah Statewide Wilderness Study Report (BLM 1991). Upon review of the area, the BLM recommended that the entire area be released for uses other than wilderness. Rationale for recommending the release focused on the fact that disturbance projected as a result of oil and gas exploration and development would make it very difficult to maintain the wilderness character of the area. The WSA has proven reserves of oil and gas with about 63 percent of the study area being within the Greater Jack Canyon Known Geologic Structure. Several leases (totaling approximately 1,423 acres) are held by production, and oil and gas operations began in this area in 1952. The BLM concluded that "the oil and gas resources outweigh wilderness values for this WSA (BLM 1991)." Despite this recommendation, the WSAs are protected under the authority of Section 603 of FLPMA, and are managed according to the Interim Management Policy (IMP) and Guidelines for Lands Under Wilderness Review (BLM 1991) to preserve their wilderness values until Congress either designates them as wilderness or releases them for other uses.</p> <p>The 1991 Utah Statewide Wilderness Study Report recommended 224,850 acres of the Desolation Canyon WSA for wilderness designation with the recommendation to release 65,995 acres for uses other than wilderness. A substantial portion of the area recommended for release falls within the WTP Project Area and the Peter's Point oil and gas Unit (5,350 acres of the non-recommended portion of the WSA). These areas were recommended for release from consideration as wilderness based upon proven gas resources and the high potential for oil and gas resources. Despite this recommendation, the WSAs are protected under the authority of Section 603 of FLPMA, and are managed according to the Interim Management Policy (IMP) and Guidelines for Lands Under Wilderness Review (BLM 1991) to preserve their wilderness values until Congress either designates them as wilderness or releases them for other uses.</p> |
| 657       | Special Designations | The portion of the Desolation WSA contiguous with the Jack Canyon WSA and north of the Cedar Ridge Road should be dropped from wilderness consideration.   | BLM does not have the authority to release WSAs or portions of WSAs established through the FLPMA Section 603 review from WSA status. They must be managed according to the IMP until Congress either designates them as wilderness or releases them for uses other than wilderness.   |
| 658       | Rangeland            | In opposition to the analysis that increased traffic levels could result in increased vehicle collisions with livestock. As Nine Mile Canyon is fenced (the private lands portion) in many areas; the majority of livestock on public lands are not in the canyon except in the fall, but on the Tavaputs Plateau, it is not anticipated that additional livestock/vehicle accidents will occur. The FEIS should include this information.   | It is reasonable to anticipate that additional livestock/vehicle accidents would occur in both Nine Mile Canyon and on the WTP because livestock would utilize unfenced portions of Nine Mile Canyon and areas on or near airstrips on the mesa tops.  |

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| 659       | Rangeland       | The proposed development could result in the loss of available forage. However it would be temporary and with the mitigation planned, the lands would, in the long-term, be more viable and healthy for grazing management practices that would promote more grass watershed improvements and increased habitat for wildlife. The proposed development, in Carbon County's opinion, could result in changes to existing range facilities in a way that would add to the needed watering facilities and provide more assistance to keep more water dispersed within the grazing areas, allowing a more even use of the forage because of a more even distribution of livestock. This would make herding easier and more predictable. | Table 2.6-8 has been modified to include a measure that would require the operator and BLM to determine if and where additional watering facilities are needed in order to offset project-related effects on currently available watering sources for livestock.   |
| 660       | Visual          | No VRM management exists at this time since no amendment has been added to the MFP to allow this action.  | The DEIS discloses in Section 3.16.3 that the existing VRM classifications for the Price Field Office are based on an inventory conducted subsequent to the publication of the Price River MFP. The FEIS also recognizes that VRM management classes for the WTP Project Area have been established in the recently completed Price Field Office Approved RMP.   |
| 661       | Visual          | VRM is a subjective management tool and should be reflected as such.  | While visual resources inventories on which visual management objectives are based, are by nature subjective, the visual resources management system provides a methodological approach to identify visual values, establish objectives for managing those values through the RMP process; and provide timely input into proposed surface-disturbing projects to ensure that the assigned objectives are met or intrusions are sufficiently mitigated as discussed in Section 3.16.3   |
| 662       | Visual          | VRM, in the manner it is used, supersedes FLPMA, which is a usurpation of Congress' authority by regulatory assertions.   | As discussed in Section 3.16.3, the BLM is directed to manage public lands in a manner that will protect the quality of the visual (scenic) values in accordance with Section 102(a)(8) of FLPMA. The BLM VRM system is a standardized method to identify visual (scenic) values; establish objectives for managing those values through the RMP process; and provide timely input into proposed surface-disturbing projects to ensure that the assigned objectives are met or intrusions are sufficiently mitigated (Table 3.16-1). |
| 663       | Visual          | Lighting of drill rigs would be visible from long-viewing distances as shown by the lights on the reservation side of the Green River. Because of this, the existing VRM level is already skewed and should be given a level of Class III.  | Changes to VRM classifications are a land use planning decision and are beyond the scope of this document.   |

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| Comment # | Topic/ Resource                 | Public Comment  | BLM Response  |
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| 664       | Socioeconomics                  | Since Carbon County's culture is based on natural resource extraction, we don't anticipate that significant changes in the rural character of local communities surrounding the WTP Project Area that would not occur as a result of normal growth and progress. It is the timing that would increase, but this would be over a period where substantial royalty income for this and other proposed developments would assist and mitigate many of the issues raised by growth.   | This feature of the local economy is discussed in Section 4.13.2.5 of the EIS. This is reinforced by the general understanding that public lands resource extraction is the mainstay of Carbon County's employment and tax base.  |
| 665       | Socioeconomics                  | The BLM should incorporate information from the recent study "The Structure and Economic Impact of Utah's Oil and Gas Exploration and Production Industry 'Phase II' Carbon and Emery Counties," which was prepared for the Public Land Policy Coordination Office, under the Utah Governor's Office, December 2007.  | See response to comment #506.   |
| 666       | Special Designations            | Carbon County objects to the use of the acronym, WIA in this document. WIAs have been stricken, as was the IM policy for WIA management. They no longer have any credibility according to the settlement agreement between the State of Utah and the Department of Interior.  | The term WIA is used within the document in its historical context to delineate a specific inventory boundary. The EIS clearly states in Section 3.17.3, "The identification of lands with wilderness characteristics within the Desolation Canyon and Jack Canyon areas is administrative, with no recommendations regarding designations of Wilderness Areas or the creation of new WSAs to be made. Identification of lands with wilderness characteristics does not by itself; change the allowed uses of public lands. The right to explore and develop existing oil and gas leases on lands with wilderness characteristics remains valid. There is no regulatory authority regarding management within or surrounding these areas." However, BLM Handbook 1601-1 I.K. recognizes wilderness characteristics as one of the resources on public land, and BLM is obligated to assess the impacts of its activities on wilderness characteristics as has been done in the FEIS. |
| 667       | Agency Wildlife Mitigation Plan | On bullet point #3, in monitoring for sage-grouse, Carbon County believes that it is very important that with the WAFWA report yet to come out and PECE protocol issues, the CACARM also needs some consideration for monitoring coordination. The agency alternative mitigation to establish an oversight committee to be led by the BLM would be helpful. The committee should also include a representative of the local sage-grouse working group, an area landowner and or permittee, and a county representative. | As appropriate, the WTPMOC would use information and principles from the Western Association of Fish and Wildlife Agencies, Policy for Evaluation of Conservation Efforts, and Castle Country Adaptive Resource Management Local Working Group to guide mitigation strategies for sage-grouse. The Agency Wildlife Mitigation Plan has been revised such that the WTPMOC would include, or at least invite to participate, a representative from a local sage-grouse working group, and representatives from Carbon, Uintah, and Duchesne counties.   |



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| Comment # | Topic/ Resource  | Public Comment   | BLM Response   |
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| 668       | BBC Wildlife Mitigation Plan                           | Any planned road realignments for sage-grouse (or otherwise) need to be reviewed on-the-ground by County staff to ascertain the proximity to verify telemetry results and the need to realign the route. Redundant road segments could be removed based on this on-the-ground survey.  | See response to comment #641. The BLM understands their responsibility to consult and coordinate with the County regarding any proposed realignments on authorized Title V ROWs. This also applies to proposed realignments designed to reduce surface disturbance within sage-grouse core winter use areas.                                   |
| 669       | Alternatives/ Transportation/ Wildlife Mitigation Plan | The process of vacating a road by the County meeting certain criteria can be accomplished according to State Statute by public notice and a public hearing process. It is understood that BLM would require a relinquishment of the road by the holder (the County) of the ROW, and the county would reciprocally require a Title V to any new routes for open public use replacing the vacated road segment meeting Carbon County road standards. | See response to comment #641. Should Carbon County acquire Title V ROWs to individual BLM system roads in the WTP area, the BLM would follow the proper procedure to ensure compliance with State Statute adequate county involvement.   |
| 670       | Wildlife   | The FEIS should reveal that the sage-grouse lek the DEIS referred to is on private land and not in the project area.   | As stated in Section 3.10.3.2, one active lek location has been identified within the southwestern portion of the WTP Project Area on BLM-administered lands.  |
| 671       | Wildlife   | The FEIS should also recognize the local sage-grouse working group, UPCD, and GIP all have the statutory ability to assist financially with in-kind monitoring.  | Under both the BBC Wildlife Mitigation Plan and Agency Wildlife Mitigation Plan, the operators would bear the burden of costs for wildlife mitigation projects. This assures that mitigation is definitely committed, but would not prevent joint mitigation efforts if habitat enhancement efforts would meet the objectives of other groups. |
| 672       | NEPA   | On page 1-7, the EIS should include a statement acknowledging access to all school trust land parcels among the bullet points for planning criteria.   | See response to comment #505.  |
| 673       | NEPA/ Alternatives                                     | Pursuant to the decision of the United States District Court for the District of Utah in <i>Utah v. Andrus</i> , BLM is obligated to grant reasonable access to the State of Utah and its grantees, assigns, and/or successors-in-interest to school trust lands, notwithstanding any special designation or avoidance/exclusion area for ROWs on intervening BLM lands.   | The comment is correct, however, that right is subject to Federal regulation when its exercise requires the crossing of Federal property. Such regulation cannot, however, prohibit access or be so restrictive as to make economic development competitively unprofitable.  |
| 674       | Alternatives   | 2.1.1.3 Pipeline Construction and Associated Tasks and Facilities: Wherever possible, the School Children's Trust would prefer pipelines not to be buried, particularly if it requires blasting of rock or other extremely disruptive surface disturbance. The BLM should weigh the alternatives of buried vs. surface pipelines where permanent damage could result by attempting to bury lines.  | See response to comment #93.   |

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| 675       | Alternatives                 | 2.1.5.3 Produced Water Management: The highest priority should be given to disposing of water in the subsurface. The BLM should encourage BBC to dispose of its produced water by injection rather than through evaporation ponds, and act proactively in approving water disposal applications.  | See response to comment #516.   |
| 676       | Water                        | In reviewing The School Children's Trust records, it also owns several surface diversion water rights which are not listed in your table 3.5-9. Please update the table appropriately.  | See response to comment #517.   |
| 677       | Recreation                   | In the DEIS discussions, it appears that the BLM is using the ROS system as a management tool to manage for the spectrum qualities. Rather than directing activities, the ROS should be adaptive to other decisions on land use.  | ROS is a framework for defining classes of outdoor recreation environment, activities, and experiences. Prior to the revision of the Price Field Office RMP (Oct. 2008), ROS was considered a framework and guide for defining classes of outdoor recreation environment, activities, and experiences. Since the Approved RMP has been signed, the ROS classification is used as a guide to decision making on projects with potential to alter physical, managerial, or social settings within the SRMAs. ROS is only used to inventory opportunities outside of the SRMAs. As the DEIS discloses, the ROS classifications would need to be adapted based upon the level of development.   |
| 678       | Alternatives/ Transportation | With regard to road closures, providing access to trust lands must be permitted to SITLA and The School Children's Trust, its permittees, grantees, and successors-in-interest notwithstanding any closure to the general public.   | See responses to comments #521 and #673.  |
| 679       | Alternatives/ Transportation | With regard to road closures, SITLA, the School Children's Trust, and SITLA's permittees, grantees, and successors-in-interest must be allowed to undertake reasonable maintenance activities to preserve and improve existing access across BLM lands, after consultation and appropriate environmental review by BLM.                             | See response to comment #521.   |
| 680       | Alternatives/ Transportation | Existing routes that are the sole access to State trust lands will not be reclaimed without consultation with and approval by SITLA and the School Children's Trust.  | See response to comment #521.   |
| 681       | Land Use/ Figures            | Figure 3.6 – Land Use: The map incorrectly shows The School Children's Trust mineral position within the EIS area. Please correct map by obtaining a current land status map from SITLA's GIS department at 801/538-5100. The School Children's Trust has 10,411 surface acres and 11,550 mineral acres within the EIS plan under SITLA management. | <p>The Trust Lands Administration has been contacted and revisions have been made to Figure 3.6-1 as appropriate. However, it should be noted that the Figure 3.6-1 does not show mineral ownership for the entire WTP Project Area. Rather the map only shows mineral ownership for leased areas.</p> <p>In addition, it should be noted that the complete accuracy of the Trust Land Administrations mineral estate has little, if any, bearing on the resource impact analysis contained within the EIS (other than socioeconomic) because the majority of the analysis is based on surface impacts. Socioeconomic impacts are also accurate as mineral ownership within the WTP Project Area generally mirrors surface ownership.</p> |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
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| 682       | Cultural        | The current DEIS does not provide sufficient data on how, where, and to what extent the proposed project will affect cultural resources.  | Impacts to cultural resources are adequately discussed in Sections 4.12 and 5.12 of the EIS.  |
| 683       | Cultural        | The current DEIS does not provide sufficient data on how, where, and to what extent the proposed project will affect cultural resources.  | Impacts to cultural resources are adequately discussed in Sections 4.12 and 5.12 of the EIS.  |
| 684       | Cultural        | Basic cultural resource data-gathering activities have not been initiated for this project, even though it is required by NEPA. The Class I overview is frequently referenced as the data source for this EIS. However, a Class I overview is intended to be a preliminary step which provides guidance regarding further inventory needs of a project. It is not a sufficient data gathering technique in itself and should be followed by more substantial project identification activities. | <p>See response to comments #8, #1312, and #1313.</p> <p>The Class I data summary and the preliminary assessment of Horse Bench area was determined, in consultation with SHPO, to be sufficient to identify potential impacts.</p> <p>The BLM cultural resource inventory system is composed of three kinds of inventory: Class I - existing information inventory; Class II - probabilistic field survey; and Class III - intensive field survey (see .21A-C). Each is designed to provide specific kinds of cultural resource information for various planning and resource management needs. The most frequently employed method of inventory is Class III survey carried out for specific projects to enable BLM to comply with Section 106 of the NHPA before making decisions about proposed land and resource uses. In those cases, unless specifically prohibited in regulations, the cost of inventories shall be the responsibility of the land-use applicant or the benefiting BLM activity, as authorized in Section 110(g) of NHPA.</p> <p>A Class I inventory is most useful for gaining a comprehensive view of all the known archaeological, historic, cultural and traditional places within a large area, such as the area to be covered by a land-use plan or an EIS. A Class I inventory is a professionally prepared study that includes a compilation and analysis of all reasonably available cultural resource data and literature, and a management-focused, interpretive, narrative overview, and synthesis of the data. The overview also defines regional research questions and treatment options. Existing cultural resource data are obtained from published and unpublished documents, BLM cultural resource inventory records, institutional site files, State and national registers, interviews, and other information sources. Class I inventories, which should have prehistoric, historic, and ethnological elements, are in large part chronicles of past land uses, and as such they should be relevant to current land use decisions. General information about sacred sites and other places of traditional cultural or religious importance to Native Americans or other cultural groups (including "TCPs" as discussed in National Register Bulletin No. 38) should as much as possible be included in the inventory. Class I inventories are periodically updated, in both the compilation and the synthesis, to incorporate new data from Class II and Class III inventories, histories, oral testimony, and other sources. They can be used to develop regional research designs for resource evaluation. Maintaining current Class I inventories in GIS compatible format is of critical importance for making cultural resources information readily available for research, planning, management, and compliance activities.</p> |

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| 685       | Cultural        | 36 CFR 800 states that the NEPA process should establish the likely presence of historic properties within the area of potential effects for each alternative...through background research, consultation, and an appropriate level of field investigation. The BLM does not need to complete a 100 percent cultural resource inventory prior to the NEPA process, but they do need to complete enough of an inventory to make an informed decision regarding the alternatives and to allow the public to understand that decision.   | The BLM is not using the NEPA process as a substitute for full 106 consultation as is allowed for under 36 CFR 800.8. The NEPA process is being used only to fulfill the public involvement requirements. See responses to comments #8, #10, and #1313. |
| 686       | Cultural        | Significant sections of the Project Area, such as plateaus and side canyons, have not been sufficiently reviewed and some areas have absolutely no data in regards to the presence or absence of cultural resources.  | See responses to comments #1228 and #913.   |
| 687       | Cultural        | The discussion of impacts to cultural resources in the Environmental Consequences Section (Chapter 4.12) relies heavily on the analysis of "Site Density Estimates" contrived from known cultural resources as reported in the Class I overview. The EIS does state that these estimates are an "approximation," but a review of the data indicates they are more of a guess. Density 1 has no valid applicability because it compares two numbers that have no real connection to each other. Density 1.a and Density 1.b are slightly more valid, but as stated in the DEIS, they do not adequately reflect the strong dichotomy in the spatial distribution of the sites between Nine Mile Canyon, its major tributaries, and the upland areas. The lack of such data should be an immediate red flag that more data is required to complete an accurate analysis of the impacts of this project. Density 2 and Density 3 are very misleading because they use very small samples (3 percent and 1.5 percent) of the plateaus to extrapolate site probability for a much larger area. In essence, because the site probability varies so dramatically with each type of comparison, the overlying issue is that the available data is not sufficient to provide an accurate overview of site locations, probabilities, or potential impacts. | See responses to comments #1228 and #913.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                              |
|-----------|-----------------|--|---|
| 688       | Cultural        | <p>In order to provide sufficient data for this project's EIS, the BLM should develop a predictive model and site probability analysis using standard archaeological methods. The data would then be incorporated into the DEIS. A standard site predictive model would include at least the following steps:</p> <p>1) Develop a designed sample of the project area using existing cultural resource data, terrain, vegetation, soils, elevation, etc. To ensure the sample is large enough to be statistically viable, I would recommend designing a sample of 20 percent to 30 percent of the entire project area. Conduct intensive level cultural resource inventories of the sample areas which have not been previously inventoried;</p> <p>2) After gathering the data from the designed sample inventories, use the information in conjunction with existing cultural resource data to create a predictive model that can estimate the potential cultural sensitivity of different areas of project. The predictive model should incorporate all pertinent data such as type of terrain, proximity to water sources, vegetation type, elevation, proximity to prehistoric travel routes, proximity to tool source materials, etc. to ensure the model is as accurate as possible; and</p> <p>3) The predictive model can then be used to create a variety of visual and spatial information products (such as maps, GIS elevation models, etc.) which can be used to determine how the EIS alternatives may affect cultural resources. The visual and spatial information of the predictive model and site probability analysis can then be presented in the DEIS to show the public how areas of the project vary in cultural sensitivity, and how those areas corresponds to the different alternatives.</p> | See responses to comments #1228 and #913. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
|-----------|-----------------|--|--|
| 689       | Cultural        | <p>The current DEIS contains very little spatial information showing the location of cultural resource sensitive areas. I assume that the lack of spatial and locational information about cultural resources is being withheld under the premise that archaeological information cannot be released to the public because of the protection of site location information as required by ARPA (16 USC 470hh(a) [43 CFR 7.18]). Protection of cultural resource site location information is paramount, but does not relieve the BLM of their requirement for public consultation efforts as required by both NEPA and NHPA. The apparent impasse between the laws can be alleviated by providing maps in the DEIS which are at a scale where relocation of the cultural sites is unlikely and/or by using cultural sensitive areas rather than specific site locations. ARPA provides for the release of archaeological resource information as long as the disclosure will further the purposes of ARPA and will not risk harm to the archaeological resource. Providing information to help make decisions regarding cultural resource protection during an EIS does further the purposes of ARPA, and the maps can be provided in a manner that they do not risk harm to the resources.</p> | <p>The BLM considered including a map of the Class I inventory in the WTP EIS. However, in accordance with ARPA the BLM has decided not to disclose information concerning the nature or location of archaeological resources to public as it may create a risk of harm to resources. The BLM has included within the text of the EIS additional spatial information. As discussed within Section 3.12-7, many of the cultural resources identified occur in Nine Mile Canyon and its major tributaries. Figure 4.12-1 (Scatter Plot of Known Cultural Resources) shows the proximity of known cultural resources to the Nine Mile, Dry, and Cottonwood roads.</p> |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                  |
|-----------|-----------------|---|-------------------------------|
| 690       | Cultural        | <p>The discussion of impacts to cultural resources under each alternative in Section 4.12 does not provide sufficient data to allow the reader to understand how the alternatives differ in their affects on cultural resources. The section does not contain any maps or visual representations of variation in cultural sensitivity across the project area, even though such variation does exist. In contrast, numerous maps are presented to show sensitive locations of natural resources, view sheds, and wilderness areas. Equivalent visual representations need to be provided for cultural resources in order for the public to gain an understanding of the cultural resource impacts across the project area. Failure to provide this information is directly related to the lack of available cultural resource data and the agency's hesitation to release sensitive cultural resource data (see comment 1). Once data has been gathered to create a cultural resource predictive model, the information needs to be portrayed in maps or visual aids to show variation of site sensibility. The reader will then be able to better understand the cultural resource consequences of each alternative.</p> | See response to comment #689. |
| 691       | Alternatives    | <p>The EIS fails to address an alternative which would route energy development related traffic in a way that bypasses or avoids the culturally sensitive Nine Mile Canyon. During the scoping process, it was suggested that the BLM should identify an alternative access route that would reduce traffic in Nine Mile Canyon (EIS page 2-149). The BLM discussed several route alternatives, but then dismissed them from further review (Chapter 2.8.6). Such alternatives are viable and needs to be presented and discussed in this EIS. An alternative route into the project area can address some of the issues regarding traffic safety along Nine Mile Canyon Road. It can also address some of the concerns regarding impacts to the cultural resources of Nine Mile Canyon.</p>  | See response to comment #34.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                 |
|-----------|-----------------|---|------------------------------|
| 692       | Alternatives    | <p>Below are the stated reasons for dismissal of the Trail Canyon alternative, and my comments as to why dismissing this alternative route is not appropriate under NEPA.</p> <p>Reason: “Developing new routes that transect Nine Mile Canyon is difficult because the WTP Project Area covers three different mesas” and would require “new transecting roads” (EIS page 2-150).</p> <p>Response: All of the proposed alternatives will require the construction of numerous new roads in very difficult terrain in order to access the proposed well locations. Existing access to the WTP in general is very circuitous and rough. All of the alternatives will require road construction and road improvements in a variety of terrain types. Therefore, the inclusion of an alternative that proposes other possible routes, even if they are circuitous or difficult, is not outside the realm of feasibility. The statement that “new roads proposed in side canyons would likely impact cultural resources” is irrelevant because all of the proposed alternatives will likely impact cultural resources. The potential impacts to a resource type cannot be a reason for dismissing an alternative outright. Instead, the alternative must be compared and contrasted with other alternatives to determine the relative impacts of each choice.</p> | See response to comment #34. |



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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 693       | Alternatives    | <p>Below are the stated reasons for dismissal of the Bruin Point alternative, and my comments as to why dismissing this alternative route is not appropriate under NEPA.</p> <p>Reason: "The Bruin Point Route is problematic "because it has vehicle terrain and safety concerns, will increase vehicle drive time, will be hard to maintain in the winter, would require extensive engineering, and may impact sage-grouse and big game species" (EIS page 2-150).</p> <p>Response: Vehicle terrain and safety will be an issue regardless of the route. Eliminating the alternative for those reasons is not appropriate, especially when there are numerous concerns about vehicle and public safety with the use of Nine Mile Canyon as the main access route. Drive time, road engineering costs, and road maintenance costs to the proponent may increase with this alternative, but those are not viable reasons for eliminating an alternative. Stating that an alternative may have potential impacts to natural resources is irrelevant because all of the proposed alternatives may have potential impacts on natural resources. The potential impacts to a resource type cannot be a reason for dismissing an alternative outright. Instead, the alternative must be compared and contrasted with other alternatives to determine the relative impacts of each choice.</p> | See responses to comments #34, #574, #1205, and #1206. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 694       | Alternatives    | <p>Below are the stated reasons for dismissal of an alternative around the mouth of Nine Mile Canyon, and my comments as to why dismissing this alternative route is not appropriate under NEPA.</p> <p>Reason: "A new route would provide motorized access into what is currently an undeveloped and inaccessible area." The new route could potentially impact areas of special designation (EIS page 2-150).</p> <p>Response: All of the alternatives propose creating motorized access into areas that are currently undeveloped and inaccessible. All of the proposed alternatives will potentially impact areas of special designation and areas with sensitive cultural resources. The potential impacts to a resource type cannot be a reason for dismissing an alternative outright. Instead, the alternative must be compared and contrasted with other alternatives to determine the relative impacts of each choice.</p>  | See responses to comments #34, #577, and #919.           |
| 695       | Cultural        | <p>The proposed "Preconstruction Cultural Resource Identification Plan" (Appendix N) is insufficient for this magnitude of an action, especially in regards to cumulative effects. The identification plan proposes a piece-meal approach to conducting archaeological inventories as part of this project, rather than a comprehensive identification plan that takes into account the spatial inter-relationship of sites throughout the project area, especially where those relationships are known to exist. The Identification Plan does not even mention how archaeological identification and documentation efforts will take into account the Nine Mile Canyon Historic (Archaeological) District. The current identification plan only proposes to conduct identification efforts within the immediate direct-impact footprint of ground-disturbing activities. It does not take into account the indirect and cumulative impacts of the project, even though indirect impacts and cumulative impacts will be a significant component of a project of this magnitude.</p> | See responses to comments #913, #1228, #1310, and #1312. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                         |
|-----------|-----------------|---|--------------------------------------|
| 697       | Cultural        | <p>The BLM should prepare a Programmatic Agreement for cultural resource identification efforts as part of this EIS process. The Programmatic Agreement should, at a minimum, provide for a site identification program which requires inventory of the proposed direct-impact footprint, which requires inventory of a substantial buffer around the direct-impact footprint, and which requires inventory of adjacent known sensitive cultural resource areas. Because indirect and cumulative impacts will be inevitable, a monitoring program is needed which will evaluate the cumulative and indirect effects on sites bordering around the areas of direct impact (Monitoring program in this context means documenting and reviewing how sites are impacted or changed over time rather than standing next to a backhoe while it excavates the earth). The monitoring of sites outside the direct-impact areas will provide information about cumulative and inadvertent effects such as: unauthorized collection of artifacts, site damage because of increased visitation, and looting of sites because of accessibility. The program should also outline the recommended frequency for re-visitation to monitored sites to evaluate the site's condition. This monitoring program will be especially important for areas which have previously been inaccessible, and for sites with structures which are visible from any of the proposed project roads, well pads, or access routes. The scope of the Programmatic Agreement needs to be discussed and reviewed as part of the NEPA process because the Programmatic Agreement will determine cultural resource impacts of this project.</p> | See responses to comments #1 and #3. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 697       | Cultural        | <p>The cultural identification plan does not discuss avoidance procedures or mitigation options for when cultural resources are present within the area of direct impacts. Simply stating that sites will be mitigated or avoided does not provide sufficient data to help make a decision about potential effects to cultural resources. The EIS needs to give examples about how sites will be avoided, especially with reference to inadvertent and cumulative impacts. The EIS also needs to discuss anticipated mitigation treatments of sites within the project's footprint, especially if the site cannot be avoided. The discussion of mitigation treatment options will help provide an understanding of the environmental consequences of the various alternatives.</p> | <p>The avoidance measures contained in Appendix N are adaptive and allow the BLM flexibility to determine which avoidance measures are appropriate for each specific situation and/or site condition. Avoidance of cultural resources involves moving well locations and other type of facilities and rerouting ROWs to avoid cultural resources eligible for inclusion on the NRHP, if the disturbance of those sites would adversely affect the qualities that make it eligible. Depending on the type of site (artifact scatter, rock art, and temporary camps) several avoidance measures may be applied. When applicable, eligible sites would be avoided by at least 50 feet, though 100 feet is recommended. Where it is not possible to avoid a site by 50 to 100 feet, fencing and/or archaeological monitoring of ground disturbances would be required. In general, these standards are already practiced in the WTP Project Area. If an eligible site cannot be avoided, for reasons of topography, subsurface geology, etc., impacts to the site would be mitigated. Mitigation of disturbance effects is site specific, but may entail additional consultation, documentation, nature and extent testing, or data recovery. The level of required mitigation for unavoidable sites would be determined by the appropriate surface management agency in consultation with SHPO. Additional information is contained in Appendix N.</p> |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                    |
|-----------|-----------------|---|---------------------------------|
| 698       | Cultural        | <p>An evaluation of the impacts from the Proposed Action on the nationally significant Nine Mile Canyon Historic (Archaeological) District has not been completed as part of the DEIS. Nine Mile Canyon meets the criteria for listing on the National Register of Historic Places as a District under both Criteria C and D as defined by 36 CFR 65 and National Register Bulletin 15. The area contains extraordinarily unique rock art panels, high concentrations of archaeological sites, and well-preserved archaeological structures and features. The area has an extraordinarily unique ability to yield major information of scientific importance about a period of prehistory which is not well understood. Regardless of whether Nine Mile Canyon is formally listed as an Archaeological District, it meets the National Register criteria and therefore under 36 CFR 800, all actions that have the potential to affect the integrity of the district should be taken into account and addressed. An appropriate evaluation about how this nationally significant Archaeological District (and even potential NHL) may be impacted by the Proposed Action must be completed as part of the DEIS in order to fulfill both NEPA and NHPA regulations. Evaluation of this district needs to address the archaeology as an inter-related district, rather than as numerous independent and unrelated sites. The EIS needs to take into account the effects to the district and landscape rather than just impacts to individual surface features and artifact scatters. The BLM should be consulting with a broad panel of cultural resource specialists who have experience in Nine Mile Canyon to determine what cultural resource impacts the project may have.</p> | See response to comments #1310. |

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| Comment # | Topic/ Resource        | Public Comment   | BLM Response  |
|-----------|------------------------|--|---|
| 699       | Cultural               | This DEIS neither identifies nor avoids cultural resources significant to the Hopi Tribe.  | <p>In response to the Hopi's concerns, the BLM has included within the FEIS: 1) an analysis of the impacts development could have on the potential TCP, which has been placed in abeyance; 2) analysis of an alternative access route which would reroute some project-related traffic around portions of Nine Mile Canyon; 3) a dust suppression plan to prevent dust accumulation on rock art; and 4) an analysis of the impacts development could have on sites listed on the National Register.</p> <p>In addition, the project proponent is funding an ethnographic overview for the Hopi Tribe. This ethnographic overview will identify resources significant to the Hopi Tribe.</p>   |
| 700       | Alternatives/ Cultural | There are significant cultural resource deficiencies with all of the action alternatives, which are virtually the same, including inadequate APE identification, and inadequate cultural resources identification. None of the alternatives provides relief or mitigation for the industrial impacts on cultural resources from dust, vibrations, and diesel particulates. | <p>During the WTP PA process the BLM 1) increased the size of the APE; 2) revised their "Adverse Effects" determination; and 3) developed mitigation measures which would allow natural gas development to occur while minimizing impacts to cultural resources. The revised APE, shown on Figure 3.12-1, has been expanded to include the north rim of Nine Mile Canyon; Gate Canyon from the east to west rim; and Nine Mile Canyon from Sheep Canyon (project boundary) west to its junction with Minnie Maud Creek. A complete description of the revised APE boundary can be found in Appendix T-WTP PA. The Agency Preferred Alternative has also been modified to include the WTP PA stipulations.</p> <p>See responses to comments #1, #3, #217, #913, #1228, and #1312</p> |
| 701       | NEPA/ Cultural         | The purpose and need of the DEIS mentions only "undue environmental degradation," and does not even mention undue degradation to cultural resources.   | Cultural resources are considered an environmental resource under the CEQ regulations definition of human environment (1508.14).  |
| 702       | Consultation           | In spite of our previous letters and consultations, there is no analysis or consideration of effects on Native Americans.  | The consultation summary report that was left out of the DEIS has been included in the FEIS (see Section 2.6.1). The Native American Consultation Final Report will be included in the administrative record for the project.   |
| 703       | Cultural               | As we have stated numerous times previously regarding inadequate identification of the area of potential effects on previous proposals, the cultural resources in Nine Mile Canyon are currently suffering the adverse impacts of industrial traffic, including clouds of dust, which the BLM has failed to mitigate or adequately address.                                | See responses to comments #971, #651, #700.   |
| 704       | Cultural               | We consider dust, vibration, and "project related erosion" to have direct, adverse, and cumulative impacts, and not indirect impacts as the DEIS contends (ES 24-25).  | See response to comment #1238.  |
| 705       | Dust Study             | As pointed out by Jerry Spangler in his comments on this DEIS, the study presented in Appendix G is preliminary, incomplete, and erroneous, or deceptive.  | See response to comment #53.  |

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| Comment # | Topic/ Resource        | Public Comment   | BLM Response  |
|-----------|------------------------|--|---|
| 706       | Alternatives/ Cultural | We do not consider pull outs, parking areas, or dust abatement measures to be the solution to adverse effects to cultural resources resulting from industrial traffic through Nine Mile Canyon. As we have stated repeatedly in letters and in person, we consider re-routes to be a means by which adverse effects to cultural resources in Nine Mile Canyon could be reduced.  | The pullouts and parking areas were included in the EIS as recreation and public safety mitigation measures, and not as cultural resource protection measures.<br><br>See responses to comments #1 and #34. |
| 707       | Cultural               | We have also repeatedly stated that to assume that avoidance of cultural resources results in no adverse effects is false, and that pursuant to the National Historic Preservation Act, the Nine Mile Canyon access road should be considered as part of the proposal's APE.   | See response to comment #700.   |
| 708       | Cultural               | Previous projects and this DEIS have limited the area of potential effect to areas of direct ground disturbance. This DEIS also does not address the surrounding region being polluted by industrial noise, fugitive dust, magnesium chloride, industrial vehicle exhaust and equipment emissions as part of the area of potential effects.  | See responses to comments #700.   |
| 709       | Alternatives/ Cultural | The Hopi Cultural Preservation Office has consistently requested that Nine Mile Canyon, with its world famous prehistoric rock art and spectacular landscapes, be protected and preserved by using alternate routes to avoid the canyon. In spite of the fact that full field development includes over 180 miles of new road construction, none of the alternatives re-routes industrial traffic. We understand that there are numerous roads already built or proposed that would lend themselves to a bypass road system, and that no reasonable alternatives can be eliminated from consideration in an EIS. | See response to comment #34.  |

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| Comment # | Topic/ Resource       | Public Comment  | BLM Response  |
|-----------|-----------------------|---|---|
| 710       | Alternatives/ General | Three alternatives in the DEIS, including the Agency Preferred Alternative, propose two pump stations to be located in very scenic and archaeologically rich areas of the canyon. One of these pump stations is on BLM land, in contradiction to the Draft Resource Management Plan WTP EIS (DRMP/DEIS) and BLM assurances at public scoping meetings that these would be NSO on Federal public land in Nine Mile Canyon.   | See responses to comments #753 and #1201.   |
| 711       | Cultural              | Regarding inadequate cultural resources identification in the DEIS, we understand a Class I cultural resources overview is being developed for this proposal, but we have yet to be provided with a copy for review and comment. A Class I overview is a preliminary step which provides guidance regarding further inventory needs of a project, and is insufficient if not followed by more substantial project identification.   | During a meeting on June 19th, 2008, it was confirmed that the BLM had previously sent a copy of the Class I inventory; nonetheless, an additional copy was provided to the Hopi for their use. The BLM has continued to consult with the Hopi throughout the NEPA process. |
| 712       | Cultural              | To our knowledge, a comprehensive inventory of all cultural sites along the access roads has never been completed. Without knowing what sites exist in Nine Mile Canyon, the DEIS cannot and does not adequately address impacts and mitigation of impacts resulting from the Proposed Action.  | See responses to comments #36 and #1240.  |
| 713       | Cultural              | Despite the identified 137,930 acre project area in this proposal, the Preconstruction Cultural Resources Identification Plan, Appendix N, defines the APE as individual well pads, access roads, and pipelines.  | See response to comment #700.   |
| 714       | Cultural              | Appendix N, the Preconstruction Cultural Resources Identification Plan, is minimalist, and does not provide sufficient data on how, where, and to what extent the proposed project will affect cultural resources. The DEIS also does not address “reasonably foreseeable effects caused by an undertaking that may occur later in time,” including access roads for vandals. The lack of cultural resource information is used to avoid a comprehensive and effective analysis of the specific impacts to specific cultural resources within the project area. | See responses to comments #913, #1228, #700, and #1310.   |



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| Comment # | Topic/ Resource              | Public Comment  | BLM Response   |
|-----------|------------------------------|---|--|
| 715       | Cumulative Impacts/ Cultural | Although cumulative and indirect effects to cultural resources are acknowledged in the DEIS, none of the action alternatives address how cumulative and indirect impacts will be avoided or mitigated.  | See response to comment #866.  |
| 716       | Cultural                     | The DEIS uses predictive modeling based on incomplete data to estimate 80 known sites, 47 of which are National Register eligible, and between 94 and 219 unknown sites which may be adversely affected by this proposal (Table ES-2, ES-24), but offers little information on those sites or how these numbers were derived. | Potential conflicts between conceptual development and eligible sites under each alternative are discussed in detail in Section 4.12.  |
| 717       | Cultural                     | An evaluation of the impacts from the Proposed Action on the nationally significant Nine Mile Canyon National Register of Historic Places Archaeological District has not been completed as part of this DEIS.  | See response to comment #1310.   |
| 718       | Cultural                     | We have also stated that the entire project area lacks a comprehensive TCP investigation.   | See response to comment #499.  |
| 719       | Cultural                     | Considering the scale of industrialization proposed in this DEIS and its conflict with world famous cultural resources, the DEIS needs to take into account the adverse effects to the District and landscape as well as to individual surface features.  | See response to comment #1310.   |
| 720       | Cultural                     | Predictive modeling, based upon incomplete data, results in the DEIS simply stating sites will be mitigated or avoided, but does not provide information to enable a decision about potential effects to cultural resources.  | <p>Although there are limited archaeological data for the 137,930 acre WTP Project Area as a whole, the majority of the proposed development would occur in areas that have received considerable scrutiny as a result of past oil and gas exploration and production activities (i.e., within the Prickly Pear and Peter's Point Federal Oil and Gas Units). Taken collectively, these surveys have resulted in a fairly systematic examination of the WTP Project Area and provide sufficient data for identifying culturally sensitive areas. As shown in Figure 3.12-1, the previously inventories can be construed as representative of large portions of the WTP Project Area.</p> <p>Also see response to comment #913, #1313, and #1228.</p> |

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| Comment # | Topic/ Resource              | Public Comment   | BLM Response  |
|-----------|------------------------------|--|---|
| 721       | NEPA/ Alternatives/ Cultural | <p>The Hopi Cultural Preservation Office supports the avoidance of human remains and associated funerary objects. If excavation cannot be avoided, we support reburial in a protected location as close as possible to the location from which they are excavated.</p> <p>Therefore, after years of opposing the previous BLM policy prohibiting the reburial of human remains and associated funerary objects excavated from BLM land on BLM land, we appreciate BLM IM 2007-002 that provides for reburial on BLM land of human remains and associated funerary objects excavated from BLM land. Therefore, we request that IM 2007-002 be cited in this DEIS, along with a NAGPRA Plan of Action, including a designated location where human remains and associated funerary objects that are excavated from the project area can be reburied and protected.</p> | As discussed in Appendix N, the BLM would meet all requirements of NAGPRA for all discoveries of human remains and associated objects in accordance with 43 CFR 10. In addition, the BLM has included a reference to BLM IM 2007-002.   |
| 722       | General                      | As with cultural resources, the DEIS does not adequately provide specific analysis of the environmental consequences on water, air quality, wildlife, and visual and auditory impacts to the Desolation Canyon NHL. By simply stating that impacts are possible, the BLM is allowing the impacts of industrial development to compromise the viability and values of all other uses, regardless of its potential impacts to those other uses and resources.  | The environmental consequences of implementing the Proposed Action or alternatives on water, air quality, wildlife, and visual and auditory impacts to the Desolation Canyon NHL are addressed in the EIS. No specific examples have been provided in the comment to note deficiencies in the analysis; therefore, BLM cannot provide a more detailed response. |
| 723       | Consultation                 | The BLM's categorical denial of consulting party status to the National Trust for Historic Preservation, the Southern Utah Wilderness Alliance, the Nine Mile Canyon Coalition, and the Colorado Plateau Archaeological Alliance is of concern to the Hopi Tribe, and has resulted in a DEIS in which the industry preferred alternative, and even the so called conservation alternative are only marginally different from each other. We believe the BLM should extend consulting party status to not only the National Trust Historic Preservation, an organization established by Congress, but also any other interested party that requests it.   | See response to comment #8.   |

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| Comment # | Topic/ Resource        | Public Comment  | BLM Response  |
|-----------|------------------------|---|---|
| 724       | Consultation/ Cultural | The National Historic Preservation Act Section 106 regulations specify that the Advisory Council on Historic Preservation (Council) “is likely to enter the Section 106 process” when an undertaking “presents issues of concern to Indian tribes” (36 CFR. Part 800, Appendix A[c], [c][4]). In addition, full field development without mitigation of adverse visual and auditory impacts to Desolation Canyon NHL should result in the Council being invited by the BLM to participate in consultations. In light of the national and even global significance of these Native American cultural resources and the Council's purpose and need, we therefore hereby respectfully request that the Council enter this process for this DEIS, to assist in an outcome that would benefit all parties interested in avoiding or minimizing the adverse effects of this proposal on Nine Mile Canyon. | <p>See response to comment #8.</p> <p>The ACHP has participated in the Section 106 process as a consulting party, at the request of the Hopi Tribe (for more information see Section 6.2.2 below).</p> <p>Consultation has been ongoing between the BLM and the SHPO since 2006. The BLM has also kept the ACHP informed during the process.</p> <p>It should be noted that BLM alternatives (C and E) contain mitigation measures that would reduce if not eliminate visual and auditory impacts within the Desolation Canyon NHL, and that no development is proposed within sight or sound of Desolation Canyon under Alternative D.</p> |
| 725       | Cultural               | The impacts to cultural resources are only marginally different from one alternative to another as reflected in the DEIS, and regardless of which alternative is chosen, the impacts will be substantial.   | See response to comment #3 and #217.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                 |
|-----------|-----------------|---|------------------------------|
| 726       | Alternatives    | <p>The DEIS fails to address an alternative that would route energy development related traffic in a way that bypasses or avoids the sensitive cultural resources of Nine Mile Canyon. All of the proposed alternatives require the construction of new roads to BLM standards. The existing roads already traverse difficult and rugged terrain. Winter access to the WTP through Harmon Canyon and Cottonwood Canyon already requires heroic efforts to get industrial vehicles up the steep slopes. The Coalition recommended to the BLM that by-pass routes were feasible, but BLM dismissed this recommendation citing the presence of petroglyphs in the by-pass areas. It is difficult to imagine that there would be more cultural resources impacted by the construction of an alternative route down Trail Canyon or one of the other side canyons than would be damaged by the continual and brutal assault of industry vehicles on the Nine Mile Road as it winds through 40 miles of world class rock art panels and structures. Potential impacts to a resource type cannot be a reason for dismissing an alternative outright. Instead, the alternative must be compared and contrasted with other alternatives to determine the relative impacts of each choice. Bruin Point may be problematic in the winter, but directing spring, summer, and fall traffic to that route, as well as requiring gas field workers to use that access to the plateau, would do much to reduce the cumulative impacts of traffic in Nine Mile Canyon. Alternative transportation routes must receive serious consideration, rather than the out-of-hand dismissal manifested in the DEIS.</p> | See response to comment #34. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                            |
|-----------|-----------------|--|---|
| 727       | Consultation    | Despite the voluminous nature of the document, under all five alternatives, the DEIS reflects a remarkable scarcity of creative thinking in terms of how cultural resources are addressed and considered. In effect, the impacts to cultural resources under Alternative A (industry preferred) are largely identical to impacts articulated for Alternative E (agency preferred), and only marginally different from Alternative C (transportation reduction alternative). The NSO stipulations specified under Alternative D (Conservation Alternative) offer some hope that cultural resources in some localities would be impacted less than under the other action alternatives, but the impacts under this alternative are nonetheless substantial. None of the alternatives proposed in the DEIS demonstrate a serious attempt to consider a full range of ways to avoid, minimize or mitigate potential adverse effects to historic properties, nor does the document reflect efforts among consulting parties to reach agreement on measures to achieve those ends. | See responses to comments #1, #3, #217. |

## Appendix S

### Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses

| Comment # | Topic/ Resource          | Public Comment   | BLM Response  |
|-----------|--------------------------|--|---|
| 728       | Consultation/<br>General | Especially disingenuous are statements to the effect that the BLM seeks a collaborative approach to problem solving. For example, Chapter 1 states that any amendments necessary to the Price River Management Framework Plan to accommodate full field development would be developed by the BLM through “a collaborative and multi-jurisdictional approach, where possible, to jointly determine the desired future condition of public lands” (DEIS 1-7). In actuality, the Price Field Office has demonstrated repeated opposition, if not hostility, to a collaborative approach to resolving conflicts over cultural resources by categorically denying consulting party status to the National Trust for Historic Preservation, the Southern Utah Wilderness Alliance, the Nine Mile Canyon Coalition and the Colorado Plateau Archeological Alliance – all “organizations with a demonstrated interest in the undertaking” that are legally entitled to “participate as consulting parties due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking’s effects on historic properties” (36 CFR 800.2[5][d][1]). | The referenced statements explicitly discuss BLM's obligations under FLPMA if it is determined that a land use plan is necessary. With regards to consulting parties, see response to comment #8. |
| 729       | Consultation             | By deferring all public participation to the public comment process allowed under NEPA, the Price Field Office has failed to recognize a fundamental and important difference between public participation under the National Historic Preservation Act and that allowed under NEPA: NEPA allows for public comment, whereas NHPA allows for public participation in the resolution of conflicts arising from Federal undertakings.  | See responses to comments #8 and #10.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                          |
|-----------|-----------------|---|---------------------------------------|
| 730       | Consultation    | BLM managers have not recognized that NHPA clearly draws a distinction between “organizations with a demonstrated interest in the undertaking” to be sought out as consulting parties (36 CFR 800.2[c][5]) and the Federal agency’s mandate to “seek public comment and input” (36 CFR 800.2[d][2]). As stated in 36 CFR 800.2(5)(d)(1), “The views of the public are essential to informed Federal decision-making in the Section 106 process. The agency official shall seek and consider the views of the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties” (emphasis added). As mentioned above, “certain individuals and organizations with a demonstrated interest in the undertaking may participate as consulting parties due to ... their concern with the undertaking’s effects on historic properties.” By deferring all public participation to “comments” allowed under NEPA, the BLM has willingly and intentionally violated the underlying spirit and intent of NHPA. In effect, the agency plan to involve the public in the Section 106 process (36 CFR 800.3[e]) is to not allow public participation in the Section 106 process at all. Furthermore, 36 CFR 800.6(4) states “the agency official shall provide an opportunity for members of the public to express their views on resolving adverse effects of the undertaking” (emphasis added). This section is unequivocally referring to the public’s opportunity to comment on those efforts among consulting parties to resolve adverse effects, not on the public’s ability to comment on the undertaking itself through the NEPA process. | See responses to comments #8 and #10. |
| 731       | Consultation    | The DEIS articulates no efforts whatsoever on the part of the Price BLM to solicit comments from the public specific to the resolution of adverse effects. In fact, the BLM has not revealed to the public what, if any, efforts have been initiated to resolve conflicts over cultural resources.  | See responses to comments #8 and #10. |

| <b>Appendix S</b><br><b>Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses</b> |                        |   |  |
|---|------------------------|---|--|
| <b>Comment #</b>  | <b>Topic/ Resource</b> | <b>Public Comment</b>   | <b>BLM Response</b>  |
| 732   | Consultation           | 36 CFR 800.3(g) allows for multiple steps to be addressed at one time, but the agency is required to make sure there is an adequate opportunity to express views. None of these steps are addressed in the DEIS, and so there is no opportunity to comment on them.   | See responses to comments #8 and #10.  |
| 733   | Cultural/ Consultation | 36 CFR 800.4(a) requires participation in determining the APEs. This is not addressed in the DEIS.  | See response to comment #700.  |
| 734   | Consultation           | 36 CFR 800.4(2) requires consultation on what historic properties have not been yet identified. This has not been addressed with regard to: The Nine Mile Canyon Archaeological District, the Nine Mile Canyon Historic District, The Nine Mile Archaeological Landscape, and The Nine Mile Canyon Historical Landscape. Archaeological and other historic properties are not identified in the DEIS. | See response to comment #1310.   |
| 735   | Consultation           | 36 CFR 800.4(3) requires consultation on issues related to potential effects. This has not been addressed in the DEIS.  | See response to comment #8.  |
| 736   | Consultation           | 36 CFR 800.4(b) requires consultation on historic properties. Sites located along access routes have not been identified. Neither has any of the eligible Districts been identified in the DEIS   | See response to comment #1312.   |
| 737   | Consultation           | 36 CFR 800.4(c) requires consultation on historic significance. This has not been identified in the DEIS, especially in reference to sites and Districts mentioned above.   | See response to comment #1313.   |
| 738   | Consultation           | 36 CFR 800.4(d) requires consultation on the results of identification and evaluations. This is not identified in the DEIS.   | S See response to comments #8, #1312, and #1313.   |
| 739   | Consultation           | 36 CFR 800.5 requires consultation on assessment of effects. This requires identification of any characteristics that qualify as a historic property for the National Register. This is not addressed in the DEIS.  | Based on the impact analysis contained within the DEIS, the final results of the Dust Study (Appendix G), and comments received during the public comment period (Appendix S), in December of 2008 the BLM determined, in consultation with SHPO and the ACHP, that implementation of the Proposed Action or Alternatives could have an "Adverse Effect" on historic properties within the WTP APE. The initial determination of "Adverse Effect" was limited to the potential for dust generated by industrial traffic to settle on and effect the visual appearance of the rock art panels pursuant to 36 CFR 800.5 (a) (2) (v). However, during development of the WTP PA, the BLM determined with consulting parties that there are also potential "Adverse Effects" to the cultural setting within Nine Mile Canyon and indirect impacts to sites over the entire WTP APE. The BLM revised its "Adverse Effects" determination in a letter to the SHPO, ACHP, and consulting parties dated July 7, 2009. A copy of the revised effects determination letter can be found in Appendix T- WTP PA. |



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| Comment # | Topic/ Resource    | Public Comment  | BLM Response                                 |
|-----------|--------------------|---|--|
| 740       | Alternatives/ NEPA | There has been no opportunity to develop and evaluate alternatives or modifications to avoid, minimize, or mitigate effects as required by 36 CFR 800.6. Agencies are required to provide documentation for the public and interested parties on the entirety of the process. This has not been done in the DEIS. The DEIS should be withdrawn until all the above requirements have been fulfilled.  | See responses to comments #8, #10 and #1316. |
| 741       | Cultural           | The DEIS discussion repeatedly appears to deemphasize the seriousness of the problems related to impacts from road dust precipitated by industrial traffic. These include statements to the effect that “anticipated indirect impacts to cultural resources include the accumulation of dust and its impact on rock art, (and) the impact of vibration and project-related erosion on cultural resources” (DEIS ES 24-25), when in fact, the accumulation of road dust resulting from project traffic, impacts from vibration due to project-related traffic, and increased erosion of cultural resources from project-related activities are all direct impacts to cultural resources resulting from project activities, and these impacts are cumulative over the 30 to 40-year life of the project.                                      | See response to comment #1238.               |
| 742       | Cultural           | Implementation of the Proposed Action or alternatives constitutes adverse effects under one or more criteria that must be thoroughly addressed within the context of Section 106 compliance, regardless of whether the impacts are direct or indirect. As clearly stated in 36 CFR 800.5(a)(1), “an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling or association” and “adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative” (emphasis added). | See response to comment #1311.               |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                             |
|-----------|-----------------|---|--|
| 743       | Dust Study      | <p>Particularly troubling is DEIS Appendix G, an October 2007 revised study of particulate dust conducted by Constance Silver of Preservar Inc., included in its entirety. This study cites preliminary lab results from EMSL Analytical of Westmont, N.J., to suggest that 17 dust samples were inconclusive for magnesium chloride, that “thus far it has been impossible to isolate and identify magnesium chloride in the laboratory,” and that magnesium chloride used in Nine Mile Canyon may have been chemically altered so that “magnesium chloride may not be present in Nine Mile Canyon because there is no magnesium chloride present” (Appendix G:6). However, these statements are completely and unequivocally in opposition to test data from EMSL Analytical dated Oct. 22, 2007, that indicate that 15 (not 17) samples were analyzed, and that magnesium chloride was specifically identified in five samples, and that magnesium and/or chloride were identified in all remaining samples, although these could not be isolated to show magnesium chloride specifically (see EMSL Case No. 360700946). The contrary statements in Silver’s report suggest that either (1) the BLM mistakenly attached a preliminary report to the DEIS that inaccurately reflected the actual laboratory results and these do not represent Silver’s subsequent findings or final report; (2) that Silver never submitted a final report and that the DEIS is therefore based on incomplete and erroneous data; or (3) the inclusion of preliminary lab results rather than final results is an intentional and deceptive effort on the part of the BLM to manipulate scientific data by minimizing the prevalence of magnesium chloride on rock art panels in Nine Mile Canyon.</p> | See responses to comments #1242 and #53. |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response  |
|-----------|----------------------|--|---|
| 744       | Dust Study           | Given the presence of magnesium chloride, magnesium and/or chloride in all samples tested, Silver's conclusions about the equivocal nature of the data should be rejected. Also suspect is her statement that "there is no proof at present that magnesium chloride used for dust abatement in Nine Mile Canyon has – or will – become a vector of deterioration for the canyon's resources" (Appendix G:33). In light of her statements that magnesium chloride is a "documented agent of deterioration of concrete and works of art" (Appendix G:1) and that agencies, organizations and scientists are raising concerns about magnesium chloride (Appendix G:32). The Coalition concurs with Silver's recommendations that additional studies into dust abatement technologies are warranted, and that impacted sites need to be identified and evaluated (Appendix G:34).  | See responses to comments 3, #1242, #1243, #1053, and #651. |
| 745       | Cultural/ Dust Study | The Coalition also concurs with the DEIS (Section 4.12.1.2) that additional efforts are needed to identify, develop and implement acceptable dust-abatement treatments, that additional research needs to be initiated to develop treatments for removal of existing dust, that analytical systems should be implemented to quantitatively examine the success of dust-abatement treatments, and that all impacted rock art panels should be evaluated to determine the extent of the dust accumulation problem and thereby devise dust-abatement strategies 4-219. However, the DEIS identifies few strategies whereby these laudable goals will be achieved, nor does it specify a timetable wherein the research would be conducted, reported, and recommendations implemented. Also disconcerting is the absence of interim strategies to protect rock art panels while scientific studies are underway, a de facto pronouncement by the BLM that current dust-abatement methods are sufficient until such time that future research demonstrates otherwise. | See responses to comments #3, #651, and #971.               |

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| Comment # | Topic/ Resource                    | Public Comment   | BLM Response                    |
|-----------|------------------------------------|--|---------------------------------|
| 746       | Cultural/ Dust Study               | Ongoing site condition assessments in the Cottonwood Canyon confluence area (CPAA report in preparation) suggest the number of sites impacted by significant dust accumulation could be substantial, particularly in those areas where the road abuts the canyon wall. Preliminary data suggest that rock art sites within 30 meters horizontal and 30 meters vertical of an existing road have been severely impacted by dust accumulation, often to a point where images are no longer visible or are barely discernible. Dust accumulation was observed at many (although not all) sites up to 50 meters from an existing road. Evidence of dust accumulation at sites located beyond 50 meters from a road is more equivocal. The problem is particularly evident at those site locations where the rock art is located below and within overhangs that block rising dust plumes and redirect the rising plumes downward, coating the panels a second time. Also particularly vulnerable are rock art sites on sloping surfaces of less than 90 degrees. The preliminary study, which compares original site photographs to current site condition, examines only issues surrounding visual clarity and does not address the merits of different approaches to dust abatement. | See response to comment #614.   |
| 747       | Cultural                           | The DEIS should more accurately reflect that dust accumulation is a direct impact to cultural resources, primarily rock art sites and historic signatures, and state that these impacts will be thoroughly mitigated through Section 106 compliance.   | See response to comment #1238.  |
| 748       | Alternatives/ Cultural/ Dust Study | Performance of the dust abatement studies recommended by Silver, including, but not limited to, those of the corrosive nature of magnesium chloride and related technologies, should be required and completed prior to implementing any dust abatement measures with materials other than purified water. Regardless of what alternative is chosen, the final DEIS should clearly require dust abatement measures and require that operators are to be held accountable for compliance with these measures.   | See responses to comments #651. |

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| Comment # | Topic/ Resource        | Public Comment   | BLM Response  |
|-----------|------------------------|--|---|
| 749       | Cultural               | Baseline site condition assessments should be conducted to identify and evaluate those sites impacted by dust accumulation and to determine the spatial extent of the dust problem.  | See responses to comments #35.                            |
| 750       | Alternatives/ Cultural | The DEIS should articulate a requirement that periodic and consistent audits of site conditions will be conducted at those localities where National Register-eligible cultural resources are vulnerable to dust accumulation to monitor site degradation over the life of the project.  | See responses to comments #3 and #35.                     |
| 751       | Alternatives           | The DEIS should be augmented to include a more thorough and thoughtful analysis by transportation engineers of potential options wherein dust impacts to cultural sites could be avoided entirely. This analysis should include an examination of potential re-routing of the existing road away from vulnerable and high-density cultural resources, an examination of new access routes through side canyons without a significant density of significant sites, and upgrades to existing routes that bypass Nine Mile Canyon.   | See responses to comments #1, #34 and #651.               |
| 752       | Alternatives/ Cultural | In light of (a) public concerns over dust and other damage in Nine Mile Canyon, both from cultural resource protection and public safety perspectives, (b) the BLM's stated preference to utilize the Nine Mile Canyon corridor, and (c) the likelihood that scientific studies on dust abatement issues will not generate consensus for many years, the Coalition recommends that all portions of the Nine Mile Canyon Road and project roads in major tributary canyons be paved in those areas where rock art panels and historic inscriptions are located within 50-meters horizontal distance from of outer edge of the road ROW. | See responses to comments #1, #651, #971, #905, and #217. |

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| Comment # | Topic/ Resource        | Public Comment   | BLM Response  |
|-----------|------------------------|--|---|
| 753       | Alternatives/ Cultural | There is little commentary in the DEIS regarding potential wells within Nine Mile Canyon itself. However, we note that the various project maps include several well sites within the canyon. We believe that wells within the canyon have a dramatic impact on the viewshed and visitor experience of the canyon. Land ownership associated with these wells is not clear to us. In addition, the maps indicate two pumping stations to be located within the canyon. These wells and pumping stations are being presented as part of an overall project to be considered by the BLM. The BLM needs to consider the impact of these wells and pumping stations and their cumulative impact on the entire project. We do not support the drilling of additional wells, the creation of pumping stations, or any other surface occupancy within Nine Mile Canyon. | <p>Under all alternatives five wells proposed in Nine Mile Canyon. The five proposed well locations are between Argyle and Gate Canyons on private land. Under Alternatives A, C, and E) two pump stations are also proposed in Nine Mile Canyon. The two pumping stations, one located about a mile west of the Nutter Ranch and the other about half a mile east of the mouth of Cottonwood Canyon, are conceptually located where the major gas field gathering pipelines intersect with the gas transmission line located in Nine Mile Canyon. The pumping station near the Nutter Ranch would be on private property and the one slightly east of Cottonwood Canyon could be located on BLM-administered lands. However, the BLM has removed this pump station from Figures 2.4-1 and 2.6-1, and established criteria to determine an acceptable location. This criteria is included in the description of the alternative.</p> <p>The FEIS includes more analysis on the impacts of these facilities on cultural resources, as well as the visitor experience in Nine Mile Canyon.</p> <p>Also see response to comment #1201.</p> |
| 754       | Dust Study/ Cultural   | Another study needs to be done, or the present one expanded, to provide information on the impacts from vehicle exhaust and emissions from other facilities on the rock art, and recommendations for a course of action to protect the rock art of NMC. This report has little information on the effect the dust is having on pictograph panels. Much more research needs to be done.   | See response to comments #1240 and #1243.   |
| 755       | Cultural               | There is no mitigation plan to stop damage to cultural resources in Nine Mile Canyon.  | See response to comments #3 and #217.   |
| 756       | Alternatives           | There is no consideration of an alternative by-pass industrial traffic route.  | See response to comment #34.  |
| 757       | Consultation           | There is no consideration of consulting status for qualified organizations.  | See responses to comments #8 and #10.   |
| 758       | Dust Study             | There is no final report of the Constance Silver dust study  | See response to comment #53.  |

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| Comment # | Topic/ Resource      | Public Comment  | BLM Response   |
|-----------|----------------------|---|--|
| 759       | Directional Drilling | The assertion that the maximum vertical section under 160-acre surface spacing is over 3700', is in error. The actual maximum is 2800'. Note, this maximum is well within the maximum vertical section of over 2900' already drilled at Prickly Pear.   | <p>The maximum vertical section of 3,700 feet is technically accurate. The comment assumed a bottom hole drainage pattern that has yet to be proven, and at this point in time is unknown. In addition, the comment also failed to consider other scenarios that could actually increase the maximum required vertical section (e.g., drilling a bottom hole location from a surface location that is located in an entirely different section). The reason for this may be that a surface location is not possible within a given section due to topographical or other limitations. This situation occurs regularly in fields that are being developed using multi-well pads. Under this scenario, using only 160-acre surface locations, the maximum vertical section could easily exceed 3,700 feet. While the numbers can be argued and discussed at length, the main point is that a blanket approach like "only 160-acre surface pads" is not the practical solution.</p> <p>Furthermore, the comment failed to anticipate future down spacing of the field. As a field is down spaced, setbacks become reduced. The illustrated 660-foot setbacks would likely be reduced to 100-foot setbacks if the area is down spaced to 10 acres, which is currently being proven in other tight gas sand Basins throughout the Rocky Mountains. The 100-foot setbacks would provide for greater vertical sections than those demonstrated.</p> |
| 760       | Directional Drilling | Average vertical sections described in Appendix H are overstated. Appendix H states that average vertical sections will be 1850' for 160-acre spacing, and only 1000' for 80-acre spacing. This is incorrect. Under 160-acre surface spacing, if a well pad occupies the center of a quarter section, the average vertical section will be 933'.  | See response to comment #759.  |
| 761       | Directional Drilling | <p>Appendix H asserts "To efficiently develop the field using 160-acre surface pad density, it would be necessary to place the surface location in the exact center of a 160. Due to the topography, it is unlikely that the optimum placement will be typically achievable." This statement is flawed for at least the following three reasons:</p> <ul style="list-style-type: none"> <li>• It is not necessary to place the well pad at the "exact center". Reasonably close to the center will suffice.</li> <li>• When one examines the actual terrain conditions, it can be demonstrated that well pads spaced at 160 acres can actually be placed reasonably near the center of the quarter section, the report's so-called 'unlikely ideal'.</li> <li>• A comparison can be made with the Roan Plateau area, where 160-acre surface spacing is being successfully employed in an area with comparable terrain to the subject area.</li> </ul> | <p>While placing the pad in the exact center is certainly ideal, placement of a well pad within a given area, or drilling of additional wells from a single pad, is challenging because of limitations imposed by topography and the need to mitigate impacts on other resources. Therefore, there is a need for flexibility in well spacing that a mandatory 160-acre spacing rule would not provide.</p> <p>In both the Phase I and Phase II analysis, several potential well pads were eliminated from the development scenario due to surface conditions. Remaining pads were planned using available topography, most of which could not be located in ideal locations within a section.</p> <p>The Roan Plateau is not a valid comparison for the WTP Project Area. Reservoir targets in the Tavaputs area are significantly shallower than under the Roan Plateau, and therefore require completely different well designs to achieve the target formations. It would be inaccurate and misleading to make general comparisons to highly publicized areas that have no relevance to the specific area addressed in this EIS.</p>  |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response                  |
|-----------|----------------------|--|-------------------------------|
| 762       | Directional Drilling | <p>It can easily be shown that the average vertical sections asserted in Appendix H are in error. "If topography dictates a surface location in the corner of a 160, to reach the opposite corner of the 160, a vertical section of 3,700' would be required. " While this statement is technically accurate, it does not reflect reality, because the downhole well will not be placed at a section corner. The actual case is considerably less than 3700'. First, the situation of a well pad in one corner being made to reach the opposite corner is not realistic. If one accepts the premise that the well pad will be in one corner of a quarter section, it need only reach a downhole location that is 660' from the opposite section lines. This is because downhole wells will be spaced evenly within a quarter section, 1320' apart from each other and 660' from the section lines. Referring to' Figure 1, one can see the maximum vertical section in the actual situation will be 2800'. This is the greatest possible distance between a well pad and its farthest subsurface well. This is because there will seldom be a need for subsurface wells to be placed at a quarter section corner. Subsurface wells, having no topographic or other constraints, will always be most efficiently placed in the middle of the 40-acre spacing unit (660' away from the quarter section boundary), not the section corner as the DEIS contends. Thus even if a well pad is placed at the corner of a quarter section, a rather unusual placement in itself, it cannot be farther than 2800' (the diagonal for lateral distances of 1320' plus 660'1) from the farthest subsurface well. Note a vertical section of over 2800' has already been achieved by wells at Prickly Pear. (Appendix H pp 81).</p> | See response to comment #759. |



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| Comment # | Topic/ Resource      | Public Comment   | BLM Response                                    |
|-----------|----------------------|--|---|
| 763       | Directional Drilling | It can easily be shown that the average vertical sections asserted in Appendix H are in error. "Under the ideal circumstances described above for 160-acre surface density, the average vertical section would be approximately 1,850'. Under an ideal 80-acre surface density scenario, the vertical section would be approximately 1,000'." No maps or diagrams were offered in support of these statements. "A well pad placed in the center of a 160-acre quarter section, the so-called 'ideal' placement, will drill four 40-acre locations, each with a vertical section of 933.' (See Figure 21) Alternatively, if one places the well pad over one of the downhole locations, one vertical well and three directional wells will be drilled. Two directional wells will have a vertical section of 1320' and one will have a vertical section of 1867' (See Figure 31). The average of these four wells will be 1126'. Note that under 160-acre spacing, maximum vertical sections will be between 1867' and 2800'. Average vertical sections will be between 933' and 1126'. These averages are remarkably close to the 'ideal' 80-acre spacing vertical section of 1000' cited in the report: "Under an ideal 80-acre surface density scenario, the vertical section would be approximately 1,000'." It is thus clear that a 160-acre surface spacing is as acceptable as the 80-acre case. | See response to comment #759.                   |
| 764       | Directional Drilling | The linear regressions performed on the data by the authors of Appendix H were admitted to be weak. Regarding the concluding graph, "Prickly Pear Field Only, Wells Spudded in 2006 and 2007, Vertical Section vs. Dry Hole and Completed Well Costs, and vs. Completion Cost" (Appendix H), Figure 111, "the correlation coefficient is only a 0.50". Moreover, a close examination of the plot reveals that the correlation is clearly dependent on the completed well cost of only six wells. If one subtracts the highest three well costs and lowest three costs, there is no cost increase at all for increasing the vertical, section of directional wells.   | See responses to comments #766, #767, and #769. |

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| Comment # | Topic/ Resource      | Public Comment  | BLM Response   |
|-----------|----------------------|---|--|
| 765       | Directional Drilling | Figure 11 of Appendix H excludes the data from Peter's Point. Examining the Peter's Point data set, a linear regression reveals a greatly reduced trend, amounting to less than two thirds of the Prickly Pear trend (See Figure 41). Prickly Pear has an increase of \$400,000 from vertical sections of 0 to 2500'. The equivalent data taken from Peter's Point shows only a \$125,000 increase.   | See responses to comments #766, #767, and #769.  |
| 766       | Directional Drilling | The report offers no explanations for the cause of the observed cost increases with increased vertical section cited in Appendix H. Indeed, one such attempt to explain the data, a look at breakdown pressures and ISIP (Appendix H), Figure 121, revealed no correlation at all. Even more interesting, dry hole costs on several figures in Appendix H actually show a negative trend, that is, dry hole costs decrease with increasing vertical section. I submit that these two facts cast considerable doubt on any general conclusions drawn from these data.  | <p>The original analysis did in fact show a 'learning curve', which is clearly noted in the Figure 8 explanation "Total Days vs. Spud Date shows a decreasing trend of drilling time, indicating continuous improvement and the application of lessons learned. It is anticipated that this trend will continue, but will flatten as technical limits are achieved."</p> <p>Appendix H clearly identifies when correlations are weak and when conclusions are based on limited data. The BLM has proposed a phased approach in the development of the proposed drilling program in order to utilize new data as it becomes available. Through a phased program, BLM would be able to evaluate the data and either move to the next phase of development, or alter the current phase if the data indicates that a change is necessary to do so.</p> |
| 767       | Directional Drilling | The cost difference of \$250,000 between 80-acre and 160-acre surface spacing is in error. Appendix H states "Under the ideal circumstances described above for 160-acre surface density, the average vertical section would be approximately 1,850'. Under an ideal 80-acre surface density scenario, the vertical section would be approximately 1,000'. The difference in cost for developing via 160-surface density would be on the order of \$250,000/well." As shown on the previous page, the actual average vertical section for 160-acre spacing is between 933' and 1 126', while the DEIS states the 80-acre average vertical section is 1000'. Since the 80-acre and 160-acre cases are essentially equivalent, it follows there should be no corresponding cost increase for 160-acre well pad spacing over 80-acres. | The statement made in the Appendix H that wells drilled on 160-acre surface pad spacing would be approximately \$250,000 greater than those drilled on 80-acre surface pad spacing is a reasonable number based on the completed well costs that were analyzed. However, the data has scatter, which can only be attributed to a "learning curve". It is anticipated that the learning would continue overtime, thus reducing well costs if individual cost components such as drilling rigs, casing, etc., remain constant. Due to the data scatter, multiple conclusions can be drawn from the data. However, all else being equal, a well with greater vertical section would cost more and have greater mechanical risk compared to the same well drilled with less vertical section.  |

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| Comment # | Topic/ Resource      | Public Comment  | BLM Response  |
|-----------|----------------------|---|---|
| 768       | Directional Drilling | The strongest trend of any graph is revealed on the "Total Days vs. Spud Date" graph (Appendix H, Figure 81). This shows the effect of the 'learning curve', that is, total days decrease dramatically with time. Clearly, costs for directional wells have steadily decreased because operators are becoming more experienced and proficient. Therefore it is to be expected that costs of these operations will continue to decrease with time.   | See response to comment #766.   |
| 769       | Directional Drilling | Costs, in themselves, are not a valid reason to deny consideration of an additional role for directional drilling. Even using the \$250,000 estimated cost increase cited above, this is only 8 percent of the Completed Well Cost, or \$3,125,000. To put this in perspective, the price of natural gas has increased over 300 percent in the past 10 years (See Figure 51). In addition, the negative effect of any cost increase should be weighed against the benefit of reducing surface impacts. A reduction in spacing from 80 acres to 160 acre will have the effect of removing half of the direct impacts from well pads. | The ability to drill wells with longer vertical sections was evaluated based on both technical and commercial viability. Product price is largely beyond the control of any operator, hedging and related activities aside. Certainly, the product price has an impact on the overall economics, but technical limits were also evaluated and recommendations were made that balance both. Simply because product prices have risen in the recent past, does not mean that cost and efficiency should not be accounted for. Additionally, no mention is made of the increased cost of services that have in many cases more than doubled over the last two years. Additionally, market prices vary dramatically over short periods of time. |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response  |
|-----------|----------------------|--|---|
| 770       | Directional Drilling | Contrary to the general statement contained in Appendix H, Figures 6 and 7 herein demonstrate it is possible to place well pads with 160-acre spacing at, or near, the center of quarter sections. Thus it is entirely possible to develop the area with well pads spaced at 160 acres, utilizing vertical sections that average less than 1000'. [It already has been shown that well pads placed near the center of quarter sections will utilize directional wells averaging 933'.] Figures 6 and 7 show the west and east halves of Alternative E with well pads [in red] spaced at 160 acres superimposed where possible. Note the majority of these 160-acre well pads are on planned roads or are located upon favorable terrain. I estimate about 80 to 90 percent of the planned 80-acre well pads could therefore be replaced with well pads spaced at 160 acres. Since the 160-acre well pads have four wells drilled from them, as opposed to only two for the 80-acre well pads, roughly half of the well pads would be eliminated. This would reduce overall impacts by at least 40 percent. | See response to comment #759.   |
| 771       | Directional Drilling | The Roan Plateau area of western Colorado provides an example of 160 well pad spacing. The Roan is located within the Piceance Basin, which is geologically equivalent to the Uinta. [Uinta-Piceance Basin Province, by Charles W. Spencer, USGS]. A comparison of well data from the two areas shows that production is from the same Wasatch-Mesaverde reservoirs at comparable depths. The Roan, however, is being developed with pads spaced at 160 acres, with the downhole spacing being even greater, ranging down to 10 acres per well. Most importantly, terrain is very similar, as can be seen by a comparison of Figure 8, the subject area, with the terrain revealed on Figure 9, which shows a similarly sized area of the Roan Plateau. As can be readily seen, the terrain is comparable, yet operators are finding it entirely possible to develop gas reserves from well pads spaced at 160 acres at the Roan Plateau.  | The Roan Plateau is not a valid comparison for Tavaputs. Reservoir targets in the Tavaputs area are significantly shallower than under the Roan Plateau, and therefore require completely different well designs to achieve the target formations. It would be inaccurate and misleading to make general comparisons to highly publicized areas that have no relevance to the specific area addressed in the West Tavaputs EIS. |

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| Comment # | Topic/ Resource      | Public Comment  | BLM Response  |
|-----------|----------------------|---|---|
| 772       | Directional Drilling | Based on the technical and economic reasons stated above, the BLM should fully analyze an alternative in the West Tavaputs EIS that would require surface well pad spacing to 160 acres. This would reduce the direct surface impacts of wells up to 50 percent.  | See response to previous comments.  |
| 773       | Water                | The DEIS fails to present complete, current baseline information on surface water quantity that is essential to understanding the project's impacts. As such, the BLM cannot assess potential impacts now, and will not be able to assess actual future impacts from the project.   | Additional water quality information from five Utah STORET stations located on Nine Mile Creek have been incorporated and discussed in the FEIS. In addition, limited water quality information collected at Utah STORET stations on Minnie Maud Creek and Argyle Creek, as well as tributary canyons to Nine Mile Creek has also been added. |
| 774       | Water                | For Nine Mile Creek, the DEIS relies on stream flow data from one site that was collected over 50 years ago (and only for a brief period of time), and data from a second site at which the flow was only estimated sporadically. The only functioning stream gauge from which data has been collected on Nine Mile Creek in the WTP Project Area is USGS gauging station near Nutters Ranch (USGS 09309000, located at 39°48'45", 110°15'00", NAD 27). This station only operated between July 1947 and September 1955 (DEIS, 3-50 - 3-51). This brief period of data collection, only 8 years and ending 53 years ago, is fundamentally insufficient to characterize current baseline surface water quantity in Nine Mile Creek. Furthermore, this station is located near the western end of the WTP Project Area, and there are no data for the approximately 25 miles of Nine Mile Creek within the WTP Project Area downstream of this station. | See response to comment #773.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
|-----------|-----------------|---|---|
| 775       | Water           | The DEIS reports that flow has been estimated in Nine Mile Creek at Utah STORET station 493330 (located near Bulls Canyon) (DEIS, 3-5 1). Inspection of the record reveals that the data consist of only estimates of flows, not actual measurements, and that these estimates were only made on 16 occasions between 1992 and 2005 (the flow was measured once at 0 cfs [i.e., no flow]). Flows were estimated once in 1992, once in 1993, once in 1994, once in 1997, once in 1998, four times in 1999, once in 2000, twice in 2001, twice in 2002, and twice in 2005. This infrequent, sporadic estimation of flows provides no meaningful contribution to the understanding of baseline surface water flows in Nine Mile Creek in the WTP Project Area. | See response to comment #773.   |
| 776       | Water           | The DEIS relies on the estimation of total runoff from Nine Mile Creek provided by Price and Miller (1975) (DEIS, 3-51). However, inspection of this publication reveals that the estimation of average annual discharge is based on the data from the USGS gauging station near Nutters Ranch (USGS 09309000). As discussed above, this station only collected annual flow data for 8 years over 50 years ago. Therefore, there is no current, systematically collected data on average annual discharge for Nine Mile Creek in the WTP Project Area.  | Price and Miller's estimates of total annual flow (1975) are the best available estimates of the flow of Nine Mile Creek. |
| 777       | Water           | For Jack Creek, the DEIS reports that flows have been estimated on 20 occasions at Utah STORET station 4933250 (DEIS, 3-5 1). The flow at this site has never been measured, only estimated on 10 occasions between 1995 and 2005. On 10 occasions, there was no flow in the creek. Flows were estimated twice in 1995, once in 1997, once in 1998, twice in 2001, once in 2002, and three times in 2005. This infrequent, sporadic estimation of flows is a completely inadequate description of baseline surface water resources for Jack Creek in the WTP Project Area.  | See response to comment #773.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
|-----------|-----------------|--|--|
| 778       | Water           | The DEIS contains no data on flows for Dry, Harmon, Cottonwood, and Prickly Pear Creeks. These are the major drainages in the WTP Project Area that are tributaries to Nine Mile Creek. Without the essential and relevant baseline data on flows in these drainages, it is impossible to evaluate the potential impacts to these creeks or to Nine Mile Creek.  | See response to comment #773. The EIS has been revised to include estimates of flow at Utah STORET stations located on Nine Mile, Minnie Maud, and Argyle Creeks, as well as tributary side canyons to Nine Mile Creek. It should be noted that exact flow data is not necessary to evaluate many of the impacts discussed in the DEIS, including potential impacts from spills and increased sediment delivery.<br><br>The FEIS includes a long-term water resources monitoring plan, which will require BBC to measure flows of major drainages in the WTP Project Area. |
| 779       | Water           | Baseline data on surface water flows can be collected with inexpensive, readily available equipment. In fact, stations can be established to collect data on runoff in the intermittent creeks for a few hundred dollars each. These data are fundamentally necessary in order to understand the surface water quantity in the WTP Project Area and are essential to assessing the project's direct, indirect, and cumulative impacts. The BLM should have, and could have collected these data, or required them to be collected. | See response to comment #773.  |
| 780       | Water           | There is only one USGS gauging station on Nine Mile Creek in the WTP Project Area (USGS 09309000, located near Nutters Ranch at 39°48'45", 110°15'00", NAD 27), and there are no water quality data for this station (DEIS, 3-56).   | See response to comment #773. The total annual flow in Nine Mile Creek was estimated to be about 14,800 acre-feet by Price and Miller (1975). In addition, flow in Nine Mile Creek was estimated on 17 occasions.  |
| 781       | Water           | The DEIS relies on water quality data collected at a site outside of the WTP Project Area, and sporadically from two locations in the WTP Project Area. This is an insufficient number of sites to characterize baseline surface water quality.  | See response to comment #773.  |
| 782       | Water           | The DEIS presents water quality data collected at Minnie Maud Creek (USGS 09308500). This station is on a tributary to Nine Mile Creek approximately 14 miles west of the WTP Project Area. There was only one sample collected at this site, and that was 37 years ago (DEIS 3-56). This one, old sample provides no baseline information on the water quality in the WTP Project Area.   | See response to comment #773.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
|-----------|-----------------|---|---|
| 783       | Water           | The DEIS relies on data collected from Nine Mile Creek at Utah STORET station 493330 (DEIS, 3-57). However, these data fail to provide meaningful baseline information for Nine Mile Creek because they were not collected in any systematic manner. Data were not collected for many seasons, some years are missing, and there are no current data.   | See response to comment #773.   |
| 784       | Water           | The DEIS also relies on data collected from Jack Creek at Utah STORET station 493325 (DEIS, 3-58). However, these data fail to provide meaningful baseline information for the WTP Project Area because the sample size is too small, and the samples were not collected in any systematic manner. Data were not collected for many seasons, some years are missing, and there are no current data.   | The DEIS used all available data for Jack Creek. Under Alternative C and E, the BLM would require the operators to collect additional data on Jack Creek over the life of the project.  |
| 785       | Water           | There are no water quality data in the-DEIS for Stone Cabin, Harmon, Prickly Pear, Dry, and Cottonwood Creeks.  | The BLM has sampled one station in Upper Cottonwood Canyon since 2005. These data have been incorporated into the FEIS in Section 3.5.  |
| 786       | Water           | The DEIS correctly points out that Nine Mile Creek has been listed as a Section 303(d) water since 1998 (DEIS, 3-63). This list identifies water bodies where water quality standards are violated by one or more pollutants, causing impairment to the beneficial use, which for Nine Mile Creek is classification 3A for cold-water game fish. However, the DEIS fails to discuss any water quality data collection or analysis in conjunction with the 303(d) listing.   | Nine Mile Creek is listed on the 303(d) list for temperature only. Utah's 2006 Integrated Report does not provide the data used to determine the listing of Nine Mile Creek on the 303(d) list. Table 3.5-5 provides the temperature measurements made at the State of Utah water quality site 4933330. |
| 787       | Water           | Water quality samples are easily obtained directly from flowing perennial streams, or can be collected by establishing stations that will collect samples at times of flow in intermittent streams. The cost of collecting samples and analyzing water quality is minimal. These data are absolutely essential in order to establish current water quality of the surface water resources. Without this baseline data, it is impossible to understand or assess the project's direct, indirect, and cumulative impacts. The BLM should have, and could have collected these data, or required them to be collected. | See response to comment #773.   |



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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 788       | Water           | The data for Nine Mile and Jack Creeks are incomplete, sporadic, and not current, and thus are wholly insufficient to establish baseline sediment and turbidity in these streams. Furthermore, there are no data what so ever for the creeks in Cottonwood, Dry, Harmon, or any intermittent creeks in the WTP Project Area. Thus it is impossible to assess the potential for increased sedimentation and turbidity of perennial WTP Project Area streams, including Nine Mile Creek, Jack Creek, and the lower reaches of Cottonwood, Dry, and Harmon Canyons. | See response to comment #773. The analysis of the total amount of potential increased erosion and sediment delivery from the Proposed Action and alternatives does not depend on accurate data concerning the amount of sediment currently delivered to Nine Mile Creek. These analyses were conducted using an accepted model (WEPP), the soil type being disturbed, the amount of surface disturbance, and the design features of the proposed roads, pipelines corridors, well pads, and other project facilities. The current sedimentation in Nine Mile Creek was estimated based on the median Total Suspended Solids (TSS) values recorded at the State of Utah water quality monitoring site 4933330, the estimated total runoff for Nine Mile Creek, and the assumption that sediment delivery is at equilibrium for Nine Mile Creek.  |
| 789       | Water           | The essential data on the quantity of sediment currently delivered to the Green River have not been collected for the streams in the WTP Project Area, and thus it is impossible to assess the potential for increased sediment loading to the Green River, potentially increasing salinity levels in the Colorado River System.   | The analysis of the total amount of potential increased erosion and sediment delivery from the Proposed Action and alternatives does not depend on accurate data concerning the amount of sediment currently delivered to Nine Mile Creek. These analyses were conducted using an accepted model (WEPP), the soil type being disturbed, the amount of surface disturbance, and the design features of the proposed roads, pipelines corridors, well pads, and other project facilities. The current sedimentation in Nine Mile Creek was estimated based on the median Total Suspended Solids (TSS) values recorded at the State of Utah water quality monitoring site 4933330, the estimated total runoff for Nine Mile Creek, and the assumption that sediment delivery is at equilibrium for Nine Mile Creek. For the Green River, sedimentation rates are known more accurately based on data recorded at the USGS gauging station located at Ouray, Utah, including 194 samples analyzed for TSS over the period of record dating back to 1928. The median of the TSS values and the average annual flow was used to estimate annual sediment delivery in the Green River. |
| 790       | Water           | There are no current baseline data on flows in Nine Mile Creek, and absolutely no data on flows in any of its tributary creeks in the WTP Project Area. Thus, it will be impossible to assess whether there has been an increase in the runoff.  | See response to comment #773. The total annual flow in Nine Mile Creek was estimated to be about 14,800 acre-feet by Price and Miller (1975). In addition, flow in Nine Mile Creek was estimated at five Utah STORET stations. These data have been added to Section 3.5. A slight increase in runoff could be expected due to the larger area of bare ground and roads that would result from the Proposed Action or alternatives.   |
| 791       | Water           | There are no baseline maps, surveys, cross-sections, or descriptions of any nature on the present channel of Nine Mile Creek. Without these essential data, it will be impossible to assess the impacts from the project.  | Details concerning the channel morphology for Nine Mile Creek are not necessary to evaluate the potential impacts to Nine Mile Creek.   |
| 792       | Water           | Because there are not complete current water quality data for the surface water features in the WTP Project Area, it will be impossible to assess the impacts to surface water quality from the project.   | See response to comment #788.   |
| 793       | Water           | There are no current baseline data on flows in Nine Mile Creek, and thus, it will be impossible to assess whether stream flows have been depleted as a result of the project.  | See response to comment #773. The total annual flow in Nine Mile Creek was estimated to be about 14,800 acre-feet by Price and Miller (1975). These data provide the basis to assess surface water depletions as a result of project-related water use. Using these data, and the assumption that 75 percent of the water required would be drawn from Nine Mile Creek, the DEIS predicts a decrease of surface water flows in Nine Mile Creek of between 0.35 percent and 1.15 percent over the life of the project, depending on the alternative selected.  |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 794       | Water           | The closest downstream stream gauge on the Green River is at Green River, Utah, approximately 70 miles from the WTP Project Area. Without having established baseline flow data on the Green River at the WTP Project Area, it will be impossible to assess depletions as a result of the project.   | Flow in the Green River has been well-documented from 1947 to 1966 at the upstream gauging station at Ouray, and since 1894 at Green River. Mean annual discharge increases from 5,614 cfs at Ouray to 6,132 cfs at Green River (an increase of 8.4 percent). Additional gauging stations are not necessary to evaluate the flow conditions in the Green River.   |
| 795       | Water           | The DEIS contains absolutely no maps or surveys that delineate existing floodplains in the WTP Project Area. Without this essential and easily obtained information, there is no way to assess the impacts to floodplains in the WTP Project Area as a result of the project.  | There is no mapped floodplain data for the Price Field Office. Nonetheless, floodplains are located along Nine Mile Creek and the lower reaches of Dry, Harmon, Jack, and Cottonwood Canyons. As stated in Section 3.5 of the EIS, the distribution of floodplains in the WTP Project Area s generally coincident with the Quaternary alluvium shown on Figure 3.2-1 - Geologic Map.  |
| 796       | Water           | The DEIS does not present data on groundwater quantity that are essential to assessing the project's impacts.  | The DEIS used all available groundwater data. To supplement these data, as discussed in Section 3.5, a survey of springs and seeps was conducted during August 2008 to provide baseline data concerning flow volumes and the general water quality of springs within areas where development is proposed. The survey consists of five components: GIS mapping of known springs and seeps; review of aerial photography to select locations likely to contain additional springs and seeps; a reconnaissance spring survey in the areas identified as likely to contain springs and seeps; collection of flow and field parameter data from selected springs and seeps; and data review and compilation. |
| 797       | Water           | The DEIS reports that the main aquifers in the WTP Project Area are the alluvium along Nine Mile Creek and sandstone zones within the Green River Formation that correlate with the Bird's-Nest Aquifer (DEIS, 3-67).  | This information is accurate and has been carried forward into the FEIS.  |
| 798       | Water           | The DEIS (3-66) states that the Bird's-Nest Aquifer may be present beneath the WTP Project Area. The DEIS contains absolutely no data on this aquifer in the WTP Project Area. There are no measurements of water levels from wells, no data on the aquifer thickness and areal extent, no data from aquifer tests to determine hydraulic conductivity, no data on specific recharge areas, rates or direction of movement of groundwater, and no data on areas of discharge from this aquifer. These data are absolutely essential to establishing the baseline conditions of water in this aquifer in order to be able to assess impacts from the project. | The referenced data do not exist for the Bird's Nest Aquifer in the WTP Project Area. The long-term water quality monitoring program, which has been incorporated into Alternatives C and E, would allow the BLM to monitor any changes in groundwater quality over the life of the project.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 799       | Water           | The DEIS states that the unconsolidated materials present along Nine Mile Creek and the lower portions of the major side canyons form the principal aquifer in the area (DEIS, 3-67). The DEIS also states that there are seven existing water wells along Nine Mile Creek in the WTP Project Area. However, the DEIS only contains incomplete information obtained from the drill logs for the wells. There are no current water level data obtained from any of these wells.  | See response to comment #796.  |
| 800       | Water           | The DEIS presents no data what so ever on water in the unconsolidated material in any of the tributary canyons to Nine Mile Creek. These data are essential in order to assess the project's impacts on water availability in this aquifer.   | The referenced data do not exist. The proposed project would have no impacts on the availability of groundwater from the alluvial aquifer because water would not be drawn from the alluvial aquifers. All proposed water supply wells would be located on the mesas and would extract water from deep bedrock aquifers. |
| 801       | Water           | The DEIS states that numerous springs are present in the WTP Project Area and are shown on Figure 3.5-1 (DEIS, 3-68). However, this figure only shows 14 springs in the western portion of the WTP Project Area, and none in the eastern portion. It is hydrologically inconceivable that this represents all, or even a representative number of seeps and spring in WTP Project Area. In fact, the DEIS does not State that a systematic seep and spring survey has been conducted for the WTP Project Area. A seep and spring survey is required in order to collect and analyze baseline data on locations, geologic units, aquifers, water quality, seasonal flow rates, and use for these critical groundwater resources. | See response to comment #796.  |
| 802       | Water           | Because seeps and springs are the discharge locations for groundwater resources, baseline data are absolutely essential in order to assess the project.   | See response to comment #796.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
|-----------|-----------------|---|---|
| 803       | Water           | The DEIS contains no data on any water quality parameter from any aquifer in or near the WTP Project Area. In fact the entire discussion of existing groundwater quality consists of only two short paragraphs in the DEIS, and that is mostly general to the Uinta Basin (DEIS, 3-69). The only reference to groundwater quality in the WTP Project Area in the DEIS is a statement that water quality in the alluvial aquifers along Nine Mile Creek and the side canyons is likely consistent with the quality of the surface water in the creek (DEIS 3-69). This statement provides no information of value because: 1) there are no data from the aquifers to support it, 2) the water quality data from surface flow in Nine Mile Creek is insufficient because data were not collected for many seasons, some years are missing, and there are no current data, and 3) there are no water quality data for surface flows in any of the side canyons that flow into Nine Mile Creek in the WTP Project Area. | See response to comment #796.   |
| 804       | Water           | Water quality data do exist for at least one well in the alluvial aquifer along Nine Mile Creek in the WTP Project Area, but these data were not included in the DEIS. The Utah Department of Agriculture and Food sampled and analyzed water quality from a well in Sec 9, T12S, R16E (Sample #6235, UDAF State Ground-Water Program 2006). These and other existing water quality data must be incorporated into analysis of baseline data in the DEIS.   | Data for this well has been added to and discussed in the EIS.  |
| 805       | Water           | Having baseline data on groundwater quality from all aquifers in the WTP Project Area is absolutely essential in order to assess the potential impacts from the project. There are numerous existing wells from which water samples can be collected and analyzed, for minimal expense.   | See response to comment #800.   |
| 806       | Water           | The DEIS relies on outdated assessments of riparian areas, inappropriate methods of identifying riparian habitat, and no information on specific wetlands.  | See response to comment #808. No surveys have been conducted by the BLM within the WTP Project Area to identify or delineate specific wetlands. |

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| Comment # | Topic/ Resource   | Public Comment  | BLM Response  |
|-----------|-------------------|---|---|
| 807       | Water/ Vegetation | The BLM has conducted riparian functioning condition assessments for some, but not all, of the riparian areas in the WTP Project Area (DEIS, 3-85). However, all of the assessments were conducted prior to the BLM's 2005 Utah Riparian Management Policy. This policy mandates that the BLM Field Offices maintain and/or improve riparian areas to proper functioning condition (PFC) by incorporating riparian resource needs into RMPs and other land use planning documents (DEIS, 3-85). Having current riparian functioning condition assessments, for all riparian areas in the WTP Project Area, is essential in order to assess the project's impacts. | As cited by the comment, the BLM's responsibility to conduct proper riparian functioning condition assessments is a requirement for the RMP or land use planning process. This process is not a requirement for and is beyond the scope of project-specific EISs. This EIS correctly and adequately addresses the potential direct, indirect, and cumulative effects of the alternatives on riparian systems within the WTP Project Area. Table 2.6-8 includes a suite of mitigation measures that are designed to avoid or reduce impacts to riparian areas under Alternatives C, D, and E.  |
| 808       | Water/ Vegetation | It is completely inappropriate to rely solely on the Utah GAP data to determine the locations and extent of riparian areas, especially given that the BLM acknowledges that it fails to identify all riparian areas. The DEIS must contain on the ground surveys of riparian areas in all drainages in the WTP Project Area in order to establish baseline conditions upon which the project's impacts can be assessed.   | As explained in Section 3.8.1 of the EIS, Utah Geographic Approach to Planning (GAP) data and land cover information provide a general illustration of land cover for the entire Price Field Office. Cover type categories are listed by principal species, which define the cover type. Cover type mapping is done on a landscape scale, identifying primary associated species that can occur as localized or substantial areas within the given cover type. For the purposes of this EIS, vegetation types within the WTP Project Area are addressed in detail based on Utah GAP data cover types and mapping. The GAP data used in this EIS represent the best available and most comprehensive source of vegetation cover data for the State and the WTP Project Area. Site-specific vegetation types that may not be captured by GAP data (such as small riparian areas) and that may require the application of BMPs and mitigation measures would be determined during the onsite process. Alternatives C, D, and E include numerous BMPs and mitigation measures that specifically apply to the protection of riparian areas. These measures are identified in Tables 2.6-7 and 2.6-8. |
| 809       | Water/ Vegetation | No surveys have been conducted by the BLM within the WTP Project Area to identify or delineate specific wetlands (DEIS, 3-87). It is essential that thorough, systematic surveys be conducted in order to delineate the current presence and extent of wetlands, so that it will be possible to assess the impacts from the project.  | See response to comment #808. Similar to that discussion on riparian areas, the GAP data used in this EIS represent the best available and most comprehensive source of vegetation cover data for the State and the WTP Project Area. Site-specific vegetation types that may not be captured by GAP data (such as wetlands) and that may require the application of BMPs and mitigation measures would be determined during the onsite process. Alternatives C, D, and E include numerous BMPs and mitigation measures that specifically apply to the protection of wetlands. These measures are identified in Tables 2.6-7 and 2.6-8.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
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| 810       | Water           | <p>The DEIS acknowledges that the use of magnesium chloride as a dust suppressant could have adverse impacts on water resources and vegetation. Specifically, the DEIS concludes that the use of magnesium chloride as a dust suppressant could be expected to have similar impacts to the WTP Project Area surface water quality as those described in the CDOT study. These impacts include a slight increase in magnesium, chloride, phosphorous, total organic carbon, and metals concentrations, and a slight decrease in dissolved oxygen in the perennial streams in the area. The DEIS goes on to point out that the impacts to the WTP Project Area are expected to be greater because of the use of magnesium chloride as a dust suppressant rather than a deicer (DEIS 4-69). However, the DEIS contains no baseline data or analysis of the impacts from recent use of magnesium chloride as a dust suppressant on Nine Mile Canyon Road.</p> | <p>There are no available data concerning the impacts of the recent use of magnesium chloride on Nine Mile Canyon Road. However, based on BBC's and other operators' discontinuation of magnesium chloride on Nine Mile Canyon Road, analysis of impacts to vegetation and water resources related to the use of magnesium chloride would not be necessary. Additional water quality baseline information has been included in the FEIS (see response to comment #773).</p> |
| 811       | Noise           | <p>The background noise levels are a key consideration in determining the noise impact of any proposed activity which introduces noise to an otherwise quiet noise sensitive location. Without measuring and analyzing the existing background noise levels at representative locations throughout the WTP site, it is not possible to adequately assess the noise impact of the proposed gas well development related activities. The WTP DEIS does not include a measurement sampling or assessment of background noise levels. Furthermore, the WTP DEIS does not compare projected well development activity noise against its assumed background noise levels. Rather, it simply compares predicted noise levels against a noise level that it has incorrectly derived from EPA noise guidelines.</p>  | <p>See response to comment #313.</p>  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 812       | Noise           | The EPA indoor and outdoor noise guidelines were originally developed for residential areas. These were extended to include parks, exterior areas surrounding hospitals, churches, and recreational areas such as municipal parks. It was not intended to be extended as criteria for natural preserves. Yet, despite the DEIS's acknowledgements that the EPA noise guidelines are insufficient for the purpose of establishing noise impact of the Proposed Action on the WTP Project Area, the WTP DEIS somehow comes to the conclusion that: "The context of public health and welfare includes personal comfort and well-being, the absence of mental anguish, disturbances, and annoyance, as well as the absence of clinical symptoms of hearing loss of demonstrable physiological injury. Therefore, a 55 dBA noise level is considered a reasonable average noise level that the WTP project-related noise sources could produce without an adverse effect to the public".                | BLM acknowledges that the EPA noise guidelines were originally developed for sensitive receptors which included parks, medical facilities, churches and recreational areas. It is acknowledged that lower noise levels may affect visitors to wilderness study areas and wilderness characteristic areas. To alleviate the noise effects along the Green River, mitigation under Alternatives C and E has been proposed for wells that would be drilled and completed within either the viewshed of the Green River or within sound of the Green River (approximately 2 miles). This mitigation, listed in Table 2.6-8, states that wells within the viewshed would not be drilled or completed between May 15 and August 15, which is the high river use recreation period. Also, operators would be required to reduce noise from drilling and completion activities through the use of hospital-grade mufflers on drill rig and completion rig engines. |
| 813       | Noise           | DNL by definition is a 24-hour average (on an energy basis) of noise levels that includes a 10 dB penalty for noise that occurs between 10:00 PM and 7:00 AM (local time). As a result, to compare the noise level produced by any noise source, especially one that operates continuously over a 24-hour period (such as well drilling activity), its energy equivalent sound level (LEQ) must be converted to DNL. For equipment operating continuously over a 24-hour basis, this conversion must include a 6 dB increment added to the LEQ noise level produced by that source to determine the DNL. This increment accommodates the 10 dB nighttime noise level penalty that gets added into the level for each of the 9 nighttime hours. This conversion was apparently overlooked in preparation of the WTP DEIS. As a result, the claim in the WTP DEIS that the EPA noise level threshold is 55dB(A) fails to acknowledge that this a DNL, rather than simply the unconverted noise level. | This comment is correct. The corrected noise propagation from the existing 10-engine compressor station, and the proposed 7-engine and 4-engine compressor stations are presented in the FEIS.   |

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| 814       | Noise           | Section 4.18.1.1 Alternative A - Proposed Action of the WTP DEIS provides overall A-weighted sound levels measured at some distance for certain activities related to gas well development and production. The source of this noise level data is not referenced and the projection of those noise levels is both limited and subject to errors.   | The support for the source noise levels used in the noise modeling is included in the FEIS. The factual basis of the statement that "the projection of those noise levels is both limited and subject to error" is not explained in the comment. Therefore, the BLM cannot specifically respond. |
| 815       | Noise           | In Section 4.18.1.1, under Operational Noise Impacts, the WTP DEIS includes a simple log addition equation for adding sound levels produced by multiple identical noise sources. It then attempts to use that relationship to develop Table 4.18-1. That table offers estimated sound levels versus distance from a group of 5.5 1,600 HP engines within a new WTP compressor station, assuming that a single 1600 HP engine produces a noise level of 77 dB(A) at 50 feet away. This single engine is therefore expected to produce 6 dB less at twice the distance, or 71 dB(A) at 100 feet. Using logarithmic addition of an "average of 5.5 engines" (if such an arrangement is possible - a more realistic assessment would use 6 engines) results in a simple log summation that adds 7.4 dB to the sound level of a single engine. In other words, the group of 5.5 engines would be estimated to produce 78.4 dB at 100 feet. The WTP DEIS reports the combined level to be 77.0 dB(A). A more conservative assessment would consider all 7 engines that potentially could be installed at a compressor station, according to range offered in the WTP DEIS. The combined noise levels of 7 engines would result in the total estimated noise level of 79.5 dB(A), or about 2.5 dB higher than the combined level of 5.5 engines of Table 4.18. This seemingly small difference becomes significant once this level of noise is extrapolated away from the compressor station. The distance at which the erroneous WTP DEIS 55 dB(A) threshold level is reached calculates out to be 1,675 feet (rather than 1,300 feet reported in the WTP DEIS). This alone translates into a 66 percent larger area of the WTP that is noise impacted than estimated in the WTP DEIS. The distance at which | See response to comment #813.  |



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|           |                 | the combined noise level produced by 7 engines at a compressor station begins to subside below the more conservative 45 dB(A) threshold interpretation of the EPA guidelines criteria (as described above), is beyond 5,333 feet. This is greater than 1 mile in all directions, and defines a noise impact area of at least 3.2 square miles. Free field reduction of noise from the 7 engines in the example above to a level below 40 dB(A) requires being more than 9484 feet from the engines in all directions. This equates to a noise impacted area that exceeds 10 square miles.  |  |
| 816       | Noise           | The reflections of sounds produced in narrow canyons will tend to minimize the loss of sound with distance compared to the free field noise reductions computed above. As a result, compressor stations and other noise sources (including road traffic) will travel further from the noise source and create an adverse impact for a greater distance.  | The noise effects within canyon topography have been addressed in the FEIS using a simple reflection model (see Section 4.18).               |
| 817       | Noise           | Beyond simple estimation of sound levels produced by certain selected equipment at a distance, the WTP DEIS does not provide a more detailed analysis of the noise impact throughout the WTP based upon the wide variety of noise sources that will operate on the proposed site, and various distributions of those sources throughout the site. In areas of denser equipment installations and activity, noise levels will be additive and the resulting noise impacted areas will be larger. None of this is apparent from the very limited analysis of noise provided in the WTP DEIS. | The predicted noise effects of multiple noise sources at locations within the WTP Project Area are evaluated in the FEIS (see section 4.18). |

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| 818       | Noise           | The WTP DEIS uses generalized and unsupported discussions of probable noise impact, rather than fact-based noise measurements and quantitative analysis used to develop an objective assessment of the noise impact of the proposed gas well development and operation. This conclusion is neither supported nor otherwise quantified with any significant degree of noise analysis. It is not apparent from the WTP DEIS if any portion of the WTP Project Area, adjacent WSAs, areas with wilderness characteristics, Desolation Canyon, or Nine Mile Canyon will have any freedom from noise intrusion created by the proposed gas well development and production activities. | Additional noise modeling has been added to the FEIS (see Section 4.18). |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
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| 819       | Noise           | A thorough noise impact study should be conducted of the WTP Project Area and associated WSAs. Such a study should consist of background noise level measurements conducted using calibrated ANSI Type 1 or 2 sound measuring instruments at representative positions throughout the entire project area. The background noise levels should be made at least for 24- to 48-hour periods (with data averaged at least hourly for each position). Noise level sampling should be conducted throughout the entire WTP site covering at least every 10 square miles, and should include representative sampling throughout each of the areas with wilderness characteristics, the WSAs, Desolation Canyon, and Nine Mile Canyon. Noise level impact of the activities associated with the proposed construction and operation of the gas wells should be made using representative spectral data for each of the proposed noise sources, groups of sources, and all related activities input into a three dimensional computer modeling software routine, such as Cadna A or Soundplan. These software packages use international standards for predicting outdoor noise levels and include consideration of topological data as well as meteorological information. One result of noise impact predictive software is the development of sound level contour maps, which show as a series of sound level contours, the distribution of sound as it propagates away from various noise sources. This also allows the combination of multiple noise sources operating simultaneously. | Noise measurements are not needed for all areas of the WTP Project Area. The background noise level for the WSAs has been updated with data provided by SUWA (see response to comment #313). The Sound Plan model is not appropriate for estimating noise effects of the WTP project because it is designed to evaluate industrial facilities and traffic in populous communities. The modeling performed for the FEIS is more appropriate for estimating average noise levels under the conditions in the WTP Project Area. |
| 820       | Noise           | The study should include appropriate references to aid in establishing suitable noise level criteria for areas with wilderness characteristics, the WSAs, Desolation Canyon, and Nine Mile Canyon.  | See response to comment #313.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
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| 821       | Noise           | The outcome of detailed predictive noise analysis should be a comparison between the predicted noise levels and background noise levels measured at various sampling positions throughout the WTP. In addition, comparison against reference criteria would also be appropriate to aid in the judgment of the severity of the impact. This analysis should determine the extent of noise impact across the entire WTP site, including all areas with wilderness characteristics, the WSAs, Desolation Canyon, and Nine Mile Canyon. This may best be achieved by using the contour sound level mapping option and color coding the resulting increases to background noise levels to readily show the severity of noise impact across the site. | Noise modeling has been conducted for the FEIS at many representative locations. Noise has been evaluated from temporary facilities (drill rigs), fixed and permanent facilities (compressor stations and well pad facilities such as pumping units), and transient sources (traffic). The results are compared to the estimated background values in various locations in the WTP Project Area, including the Jack and Desolation Canyon WSAs, Nine Mile Canyon, and within the Green River WSR corridor (see Section 4.18).   |
| 822       | Noise           | The WTP DEIS contains some limited predictive analysis of equipment noise that is compared incorrectly against EPA noise guidelines. Either the noise level predictions need to be converted into terms that are compatible with the Day Night Sound Level Average (DNL) employed by EPA guidelines, or the threshold noise levels derived from those guidelines need to be revised to reflect the nighttime noise penalty built into the calculation of DNL. In addition, the WTP DEIS should consider additional criteria that are more appropriate for areas with wilderness characteristics that are used for recreation.   | The DEIS predicted 24-hour average noise levels and compared them to the EPA noise standard of 55 dBA since neither the State of Utah, Carbon County, nor the BLM have established any regulatory or statutory noise limits. The 24-hour average noise level (Leq) was used to evaluate the noise impacts. It can be argued that the 24-hour Ldn noise level could be used. However, it must be noted that the Ldn noise scale is used to relate noise in residential environments to chronic annoyance by speech interference and in some part by sleep and activity interference. The remote areas of the WTP are not residential areas. Therefore, both the Leq and the Ldn noise levels are evaluated in the FEIS. See response to comment #821. The FEIS noise analysis primarily evaluates noise impacts in WSAs and the Green River WSR, as well as more developed areas such as Nine Mile Canyon. In this analysis, the projected noise is compared to the background levels within these particular areas in Section 4.18. |
| 823       | Noise           | The WTP DEIS study is deficient and incomplete. From the standpoint of noise impact, it is not a credible study. It does not provide the information needed to fully assess the extent to which noise related to activities of the proposed gas well development and operation may create a significant adverse noise impact on the WTP. It has not addressed the probable noise impact of the project proposals for the WSAs, Desolation Canyon, Nine Mile Canyon, and areas with wilderness characteristics.  | See responses to comments #313, #821, and #822.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
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| 824       | Socioeconomics  | Public lands provide numerous values, some of which are realized when natural resources are extracted, and others which require that the natural ecosystems remain intact. The benefits of these various values often flow to different groups or individuals. Given that some of the benefits from public lands are more likely to flow to individuals or companies (market benefits), and others are available for the entire population (non-market benefits), it is important that the BLM examine a range of alternatives with varying levels of both market and non-market benefits. This means that some alternatives must produce larger levels of non-market benefits, such as those that accrue when wild lands are protected from development and motorized recreation. These benefits must be measured and compared with the market benefits that accrue to companies and individuals when natural resources are extracted and sold. Only when a true range of alternatives are thoroughly examined and compared can an informed decision about public land management be made. | <p>Alternatives B (No Action Alternative) and D (Conservation Alternative) fulfill BLM's "obligation" to examine a range of alternatives with varying levels of both market and non-market benefits such as those that accrue when wild lands are protected from development and motorized recreation.</p> <p>In addition, non-market goods are discussed in detail in Section 3.13.5.2 of the EIS, and analyzed in detail under the various alternatives in Section 4.13.</p>  |
| 825       | Socioeconomics  | The WTP DEIS does not adequately address impacts on recreation due to the failure of the BLM to collect data on the recreation use in the WTP Project Area or even in the Price Field Office. These data must be collected and analyzed in order to fully assess the net benefits of any proposed use of the public lands in the WTP Project Area. BLM has collected data on recreation use in Utah (BLM 2007), and at the very least, these can be used to assess the likely use of lands in the WTP Project Area, and therefore potential losses. Additional recreation participation information also can be found in Cordell et al. 2004.   | <p>The EIS (see Section 3.13.5.2) does contain general estimates of recreation visitation for the Price Field Office and specific use data for river recreation within Desolation Canyon. However, without specific visitor use data for Nine Mile Canyon and other locations within the WTP Project Area, the recreational and economic impacts can only be discussed qualitatively.</p> <p>The recreation section of the EIS has been modified to include the following statement:</p> <p>Empirical observations by frequent users of Nine Mile Canyon (e.g., Nine Mile Canyon Coalition) indicate that recreational use of the area for cultural and heritage tourism has experienced steady decline since a surge in oil and gas development began in the WTP Project Area in 2004. These observations are supported by anecdotal information provided by the Castle Country Regional Information Center in Price, that during the past two years visitor interest and inquiries about visiting the Canyon have declined significantly.</p> <p>Based on the proposed level of oil gas development it is expected that declines in visitors to Nine Mile Canyon would continue for the LOP; however, quantifying and estimating the total decrease in visitors would be too speculative.</p> <p>Reductions in visitors could represent a loss of revenue to cultural tour guides and a loss of revenue for local businesses that serve visitors.</p> <p>There would also be a potential loss of economic value to visitors discouraged from visiting Nine Mile Canyon, and</p> |

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|           |                 |   | <p>potentially to all users of the canyon if the cultural recreation experience is diminished.</p> <p>Section 4.13.2.2., has been revised to include information on the relative value of cultural and heritage tourism.</p> <p>A similar discussion has been added for hunting and wilderness recreation.</p>   |
| 826       | Socioeconomics  | <p>There are several studies on recreation benefits which could be applied to estimate a value of the loss of recreation that would be no more speculative than is the analysis of the potential benefits of the proposed oil and gas drilling. Rosenberger and Loomis (2001) provide detailed methodology and a guide to applying the benefits transfer protocol for recreation use values. Kaval and Loomis (2003) expand upon the work of Rosenberger and Loomis, but updating the values and by including additional recreation activities. Loomis (2005) provides yet another set of recreation use values and Roper (2003) discusses trends in Americans' recreation participation. Other studies estimate the spending of recreation visitors (Stynes and White 2005, Outdoor Industry Foundation 2006 and 2007). These analyses could be combined with still other studies examining the behavior of recreationists in response to changes in recreation sites or loss of recreation areas (Grijavla et al. 2Q02, Hesseln et al. 2003, Hesseln et al. 2004) to make evaluations of the potential costs associated with recreation losses.</p> | <p>While it is recognized that there are several studies on recreational benefits, which could be applied to estimate a value of the loss of recreation, all of these studies are contingent on the availability of existing visitor use data. The lack of specific visitor use data in the WTP Project Area is discussed in the response to comment #825. Even if BLM had existing visitor data, future changes could only be measured qualitatively since specific reductions cannot be predicted in response to industrial use of the area.</p> |
| 827       | Socioeconomics  | <p>The BLM must collect recreation use data that will allow for a quantitative assessment of the impacts that the proposed oil and gas drilling will have on recreationists, on businesses in the planning area which rely on recreation, on other businesses which rely on the presence of recreation opportunities in the WTP Project Area to attract workers, and on the general facets of the economy which have been growing in importance, in part due to the recreation and other natural amenities of the area.</p>   | <p>See response to comment #825.</p>   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
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| 828       | Socioeconomics  | The BLM must collect and analyze actual data on the economic impacts of the alternatives, including Alternative E. Some suggested analyses and sources of data can be found in "Socio-Economic Framework for Public Land Management Planning: Indicators for the West's Economy."  | Section 4.13 of the EIS discusses the economic impacts of the alternatives, including impacts specific to economic sectors that are addressed in the provided literature.  |
| 829       | Socioeconomics  | The BLM must make a thorough examination of the full socioeconomic impacts likely to occur if the management alternatives are implemented. These analyses must take into account the impacts that BLM land management actions will have on the surrounding communities, including the added cost of providing services and infrastructure, the long-term costs of the likely environmental damage, and the impacts on other sectors of the economy. The BLM must examine the role that protected public lands (including lands with wilderness characteristics) play in the local economy. | Impacts to surrounding communities, the added cost of providing services and infrastructure, and the impacts on other sectors of the economy are all addressed within Section 4.13 of the DEIS.<br><br>Calculating the long-term economic costs of environmental damage would be too speculative.                                    |
| 830       | Socioeconomics  | The BLM should consider the long-term negative impacts associated with over-dependence on the resource extraction sectors and approve an alternative which protects the area's lands with wilderness characteristics and the other natural amenities to the fullest, as these are much more likely to be the stable, long-term source of the region's economic prosperity.   | Impacts to natural resource dependant economies are discussed in Section 4.13.2.5 of the EIS. Protection of WSAs and Non-WSA lands with wilderness characteristics is provided for within the range of alternatives contained within the EIS. The ROD will identify the selected alternative and provide rationale for the decision. |
| 831       | Socioeconomics  | The BLM should adopt an alternative which reduces the overall impact on the lands in the project area, especially WSAs and non-WSA lands with wilderness characteristics. We recommend that this be achieved by reducing the total number of wells drilled, eliminating any surface occupancy in WSAs and non-WSA lands with wilderness characteristics, and by slowing the pace of the proposed development.  | Protection of WSAs and non-WSA lands with wilderness characteristics, and a phased development approach, is provided for within the range of alternatives contained within the EIS. The ROD will identify the selected alternative and provide rationale for the decision.   |

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| 832       | Socioeconomics  | The use of IMPLAN is insufficient to predict future economic impacts from the proposed oil and gas drilling project. While the IMPLAN model can be useful as a tool to develop static analyses of the regional economy, the agency and local communities must be aware of the shortcomings and poor track record of the model as a predictive tool.  | IMPLAN is used by numerous government agencies including the BLM to estimate the total employment and income effect of project spending in each year over the life of the project. The prediction of impacts for the future depends on the spending patterns associated with each of the alternatives. Because economic estimates within this EIS were calculated using the same set of assumptions, the analyses provide a valuable way to compare the potential direct and secondary effects of the Proposed Action and alternatives, providing a clear basis for choice for the decision maker. A statement has been added to the EIS in Section 4.13.1.2 to disclose model limitations. Project impacts to employment and income may be offset over time to some extent by changes in economic activity in other sectors. These activities (e.g., grazing, hunting, recreation, river rafting) were addressed outside the model to the extent possible. How price changes overtime and changes in the economic value of non-market resources may affect employment and income, and its distribution among sectors of the economy, has not been modeled in a general equilibrium framework. |
| 833       | Socioeconomics  | The agency should stop relying on IMPLAN and other models derived from economic base theory. If planners use IMPLAN, the model must account for non-labor income, as well as income from hunting, fishing, and recreation.   | As discussed in Section 3.13.3, "In Carbon, Duchesne, and Uintah Counties, non-labor income is associated with income maintenance and public assistance medical care benefits, rather than with public retirement benefits or property income."<br><br>The changes in non-labor income associated with the alternatives were not reported in Chapter 4 because they do not reflect the investment and retirement income categories that often associated with amenity-based migration.<br><br>Also see response to comment #832.   |
| 834       | Cultural        | BLM planning and cultural resource preconstruction survey requirements that currently articulate scattered Section 106 clearance surveys should be modified and augmented to include additional Class II and/or Class III block surveys of poorly understood areas within the larger project area, and that these surveys should be designed to address valid scientific research questions with a potential to make significant contributions to an understanding of prehistoric lifeways in the region. Through proper consultation, Class II and/or Class III block surveys could be considered within the context of mitigation of cumulative adverse effects. | See response to comments #913 and #1228.   |



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|---|------------------------|--|--|
| <b>Comment #</b>  | <b>Topic/ Resource</b> | <b>Public Comment</b>  | <b>BLM Response</b>  |
| 835   | Cultural               | The survey standards articulated in Appendix N should be modified to include provisions for spatially broader areas of potential effect, including the documentation of all sites visible from a vehicle access route regardless of distance, as well as wider corridors that are consistent with the findings of Nickens et al. (1991) and Spangler, Arnold and Boomgarden (2006). Regardless of which alternative is chosen, all cultural sites visible from an access corridor should be thoroughly documented and monitored for future adverse impacts.  | See responses to comments #3 and #35.  |
| 836   | Cultural               | The DEIS should be clarified and augmented to indicate that reclamation upon abandonment will include the recovery of all roads constructed as part of the development. The FEIS must also fully consider the future impacts to cultural resources (and other resources) of unrestricted and uninhibited public access into the West Tavaputs project area due to operator improvements to major access roads.   | Section 2.1.6 of the EIS has been revised to provide clarification that final reclamation and abandonment would include the recovery of all roads constructed as part of the development.<br><br>Impacts to cultural resources, which could occur as a result of increased access in the WTP Project Area, can be found in Section 4.12.1.2. |
| 837   | Cultural               | The DEIS should be modified to include more thorough discussions of BLM efforts to test the validity of any predictive model used as part of the planning process.   | No predictive modeling (Class II) was used as part of the planning process. However, under the Agency Preferred Alternative, the BLM would conduct a Class II inventory, as discussed in the response to comment #1228.  |
| 838   | Cultural               | The DEIS should be modified to more clearly explain where impacted sites would be located (canyon corridors versus mesa tops), including the relationship of impacted sites to the proposed National Register District for Nine Mile Canyon.   | See responses to comments #36 and #1310.   |
| 839   | Cultural               | Given the BLM's application in Chapter 4 of an "indirect" impact standard to impacts that are clearly direct impacts (e.g., dust accumulation), the DEIS should more thoroughly examine, articulate, and tabulate the impacts, conflicts, and other factors related to all sites within the project area that would be directly and indirectly impacted by the various action alternatives. This would require a more thorough consideration of impacts to sites outside of areas of direct surface disturbance, but within the range of dust accumulation, increased erosion and vibration, and that are more susceptible to vandalism and looting. | See responses to comments and #1238, #1240, and #1243.   |

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| 840       | Cultural        | The BLM should embrace the spirit and intent of the NHPA by seeking out all willing consulting parties to participate in the resolution of adverse effects arising from full field development, and that future collaboration will reflect a willingness on the part of the BLM to engage alternative viewpoints of all interested parties.   | See responses to comments #1, #3, #8.                       |
| 841       | Cultural        | The BLM should more proactively communicate with the public on its efforts to resolve adverse effects to cultural resources, and that it provide additional opportunities to the public to express their views on efforts to resolve adverse effects. This could and should include a transparent process of regular public meetings whereby consulting parties could explain efforts to reach agreement and the Federal agency could account for its actions under NHPA. | See response to comment #8 and #10.                         |
| 842       | Cultural        | The EIS should more accurately reflect that dust accumulation is a direct impact to cultural resources, primarily rock art sites and historic signatures, and that these impacts will be thoroughly mitigated through Section 106 compliance.   | See response to comment #1238.                              |
| 843       | Cultural        | Dust abatement studies recommended by Silver, including the corrosive nature of magnesium chloride and related technologies, should be required and completed prior to implementing any dust abatement measures with materials other than water. Regardless of what alternative is chosen, the DEIS should clearly require dust abatement measures and that operators will be held accountable for compliance with these measures.  | See responses to comments #3, #651, #971, #1240, and #1243. |
| 844       | Cultural        | Baseline site condition assessments should be conducted to identify and evaluate those sites impacted by dust accumulation, and to determine the spatial extent of the dust problem.  | See response to comment #35.                                |
| 845       | Cultural        | The DEIS should articulate a requirement that periodic and consistent audits of site conditions will be conducted at those localities where National Register-eligible cultural resources are vulnerable to dust accumulation to monitor site degradation over the life of the project.   | See responses to comments #3 and #35.                       |

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| 846       | Alternatives    | Access route closures to all but administrative purposes should be accompanied by BLM public outreach, including appropriate signage that would ameliorate conflicts between the public and operators.  | The suggested mitigation measure has been added to the EIS under Alternatives C, D, and E (see Table 2.6-8).   |
| 847       | Cultural        | Given the isolated nature of the broad geographic areas that would be closed to public access and the consequent opportunities for oil and gas workers to engage in activities that denigrate or diminish the integrity of archaeological sites here, independent audits of site conditions by qualified archaeologists should be periodically implemented to assess any human-caused changes to site conditions. Such audits would deter inappropriate and illegal behavior, and could therefore be considered within the context of “minimizing” adverse effects, as defined in 36 CFR 800. | The EIS has been revised to include a long-term cultural resource monitoring plan which includes adaptive management options, should the monitoring results show adverse impacts. This plan would allow the BLM to monitor changes to sites that could potentially be directly, indirectly, or cumulatively affected by full field development. The monitoring plan has been added to the WTP PA (Appendix T). Under the WTP PA all personnel will receive training on site avoidance and protection measures and statutes protecting cultural resources.  |
| 848       | Cultural        | That full field development should include stipulations of no surface occupancy of all areas of Desolation Canyon that are visible from the river corridor, and where visual effects will adversely impact the historic integrity of Desolation Canyon and/or the recreational experience of visitors seeking to enjoy the historical context of the Powell expeditions in 1869 and 1871, regardless of distance from the center of the Green River.  | Under Alternative D there would be no surface occupancy in the Jack and Desolation Canyon WSAs; therefore, there would be no development within sight or sound of the river. Under the Agency Preferred Alternative mitigation measures are included that require there be no development within sight or sound of the river unless this limitation would prevent BBC or other operators from accessing their valid and existing rights. If development were to occur within sight and sound of the river it would only be permitted outside the recreational high use season and mitigation measures would be applied to reduce the level of impact.<br><br>Additional noise modeling has been conducted to quantify potential noise impacts within the NHL. The results of the modeling have been included in the FEIS (see Section 4.18). |
| 849       | Cultural        | That full field development should include complete mitigation of all auditory impacts that may intrude on the NHL, and that mitigation be implemented at all phases of development from construction to operations and reclamation. Mitigation should be effective enough that auditory impacts are indiscernible along the Green River and the river camps at all times of day.   | See response to comment #848.  |

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| 850       | Cultural        | Given the industry alternative and Agency Preferred Alternative call for 43 to 20 wells in the spatially-restricted Jack Canyon area, it must be acknowledged that both alternatives will have significant impacts to the roadless qualities that have protected many, if not most, of the archaeological sites in the drainage. As such, CPAA concurs that all access routes into Jack Canyon should be gated and access limited to development and administrative purposes.   | Gating all new roads that provide access into both Jack and Desolation Canyon WSAs is considered within the range of alternatives (Alternatives C and E).   |
| 851       | Cultural        | A complete assessment of all previously recorded sites and any additional sites identified through additional Section 106 compliance surveys should be initiated to establish a thorough baseline database of site conditions evident at the time Jack Canyon was restricted to industry traffic.   | See responses to comments #913, #1228 and #35.<br><br>Should the BLM select an alternative which allows development within Jack Canyon, a plan of development would be required prior to either upgrading the existing road or constructing a new road. As part of the plan of development, Jack Canyon would be considered for either Class II and/or Class III survey. In addition, sites within Jack Canyon would be included within the monitoring plan, which would establish a baseline condition and assessment. |
| 852       | Cultural        | Given the isolated nature of Jack Canyon and the consequent opportunities for oil and gas workers to engage in activities that denigrate or diminish the integrity of archaeological sites here, independent audits of site conditions by qualified archaeologists should be periodically implemented to assess any human-caused changes to site conditions. Such audits would deter inappropriate and illegal behavior, and could therefore be considered within the context of “minimizing” adverse effects, as defined in 36 CFR 800.                          | See response to comment #35.  |
| 853       | Cultural        | Jack Canyon would be an appropriate and discrete environmental universe to initiate broader mitigation measures, including Class II stratified random sample surveys and/or Class III block surveys. These surveys could contribute important new insights into the relationship between seasonal water sources and human land-use patterns on the WTP. These insights could assist and augment BLM management of cultural resources elsewhere on the plateau by identifying those environmental niches where significant cultural resources are likely to occur. | See response to comment #1228.  |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 854       | Cultural        | Operators should be required to participate in a cultural resource mitigation fund wherein annual commitments would be required to pay for 1) ongoing studies of adverse effects (e.g., dust studies), 2) stabilization or recovery of sites impacted by development activities, 3) development of recreational facilities that ameliorates conflicts with industrial uses, and 4) other projects that could mitigate the cumulative impacts of industrial development.  | <p>See response to comment #3. The BLM has no regulatory authority to enforce the suggested mitigation measures. Implementation of such measures would require voluntary commitment on part of the operator. A list of applicant-committed environmental protection measures can be found in Table 2.2-6.</p> <p>It should also be noted that the range of alternatives, as well as the numerous BMPs, environmental protection measures, and mitigation measures (see 2.6-7, 2.6-8), included in the EIS were developed and refined by the BLM and CAs in direct response to issues raised during throughout the NEPA process. These alternatives and mitigation measures address the full spectrum of resource concerns and issues that could be affected by natural gas development in the WTP Project Area.</p> |
| 855       | Cultural        | The nature and extent of the annual commitments to a mitigation fund could be based on a percentage of annual revenues from the project area with an established minimal threshold of participation. Mitigation funds could be dispersed through a non-lapsing grant pool to independent researchers/applicants with appropriate research designs (see similar mitigation grant pool programs established for the Central Utah Project and for the Federal lands disposal program in southern Nevada).   | See response to comment #854.   |
| 856       | Cultural        | The mitigation fund should be adequate to prioritize research projects that will contribute to the long-term preservation of cultural resources through avoiding and minimizing impacts to cultural resources in the West Tavaputs area, and they should not be applied toward the operators' Section 106 survey mandates. Such funds could become important matching revenue that would assist the BLM in the fulfillment of Section 110 responsibilities in the region (e.g., Challenge Cost Share Program funding) including Class II or Class III block surveys, or completion of the canyon corridor surveys initiated almost 20 years ago by Carbon County volunteers. Operator participation in such mitigation projects could become a fundamental component of mitigating the direct, indirect, and cumulative impacts of the project to the integrity of the National Register district's location, design, setting, materials, workmanship, feeling or association. | See response to comment #854.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                             |
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| 857       | Cultural        | The mitigation fund should be adequate to implement a monitoring and auditing program wherein those sites at risk from increased degradation from airborne pollutants, increased vulnerability to vandalism, and increased susceptibility to erosion and vibration could be consistently examined to determine the nature and extent of ongoing impacts. This would also include establishing a baseline from which future impacts could be measured.  | See response to comment #854.            |
| 858       | Cultural        | The mitigation fund should be established at a level adequate to implement the Nine Mile Canyon special management plan in its entirety, including hiring a full-time law enforcement officer and/or rangers trained in cultural resource protection, and authorized to enforce State and Federal cultural resource protection laws and investigate violations of those laws. Funding of a law enforcement officer dedicated to Nine Mile Canyon should be a fundamental component of the EIS regardless of which alternative is chosen. | See responses to comments #854 and #945. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                  |
|-----------|-----------------|--|-------------------------------|
| 859       | Cultural        | The Agency Preferred Alternative should require operator participation in a long-term public outreach and education initiative that extends beyond Nine Mile Canyon. Such initiatives are increasingly common components of major development projects throughout the West to (a) educate the public as to the nature of the cultural resources that were encountered and impacted through the course of development, (b) explain the scientific contributions resulting from Section 106 compliance, (c) foster a better understanding of cultural resource protection laws and how operators complied with those laws, and (d) promulgate an appreciation for cultural resources as part of the local, regional and national heritage. Good examples of such outreach initiatives in Utah include From Hunters to Homesteaders (Stettler and Seddon 2005) produced as part of the Kern River pipeline project, and Treasures of the Tavaputs (Spangler and Spangler 2007) produced collaboratively by CPAA and Questar coincident to pipeline construction on the WTP. Public outreach should also be considered as one component of mitigation of adverse effects to cultural resources, whether those impacts are direct, indirect, or cumulative. | See response to comment #854. |
| 860       | Cultural        | The BLM should encourage all operators on the WTP to engage in practices, projects, and initiatives that go above and beyond what the letter of Federal law requires, and that operators who engage in a broad range of proactive initiatives as part of their corporate citizenship be appropriately acknowledged by the BLM. Such initiatives could include partnerships to preserve and protect cultural resources, as well as efforts to enhance other environmental values. Likewise, there should be no special acknowledgment or recognition for any compliance with “the letter of the law” that is required of all citizens.  | See responses to comments #3. |

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| 861       | Cultural        | The DEIS repeatedly makes reference to BBC and other oil and gas operators. CPAA recommends that all “other operators” be clearly identified, as well as their proportional financial and legal interests in the WTP leases.   | See response to comment #958.                              |
| 862       | Cultural        | CPAA concurs with Section 1.7.1.3 that (1) proposed development could have direct, indirect, and cumulative impacts to petroglyphs, prehistoric habitation, and historic resources due to increased traffic, noise, and infrastructure, (2) development could impact the proposed Nine Mile Canyon Historic District, (3) the accumulation of dust and/or dust suppressants could change rock art clarity, and (4) increased access to the WTP Project Area could facilitate increases in vandalism, looting, and unauthorized ORV use. However, these statements should be clarified to reflect that (1) proposed development could have direct, indirect, and cumulative impacts to petroglyphs and pictographs, to prehistoric architectural and habitation sites, and to historic resources; (2) development could impact sites that are part of the Nine Mile Canyon Archaeological District (historic resources are not part of the nomination); (3) the accumulation of dust and/or dust suppressants could change the clarity of prehistoric petroglyphs and pictographs, as well as historic signatures; (4) and increased access to and longer-term residency of the WTP by project workers could result in an increase in vandalism, looting, and improper vehicle use. | The suggested changes have been incorporated into the EIS. |
| 863       | Cultural        | The DEIS should be modified throughout to better reflect the BLM's commitment under FLPMA to protect cultural resource values, and under the Energy Policy Act, that commercial development shall “be conducted in an environmentally sound manner using management practices that will minimize potential impacts” to other resources.  | See responses to comments #217 and #3.                     |



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| 864       | Cultural        | Table 2.2-6 indicates that operators would “inform” their personnel, contractors and subcontractors about relevant Federal regulations intended to protect archaeological and cultural resources, whereas the next section indicates operators would be “required” to ensure those personnel abide by hunting laws. This appears to de-emphasize the significance of cultural resource protection. This section should be modified to reflect that operators would be required to ensure their personnel, contractors, and subcontractors abide by relevant Federal laws and regulations intended to protect archaeological and historic resources. Furthermore, operators should be required to report to appropriate law enforcement officials any violation of these laws and regulations, and that they will assist authorities in the prosecution of violators under the Archaeological Resources Protection Act, and other relevant State and Federal laws. It is also recommended that the DEIS specify that operators have a personnel policy that requires immediate dismissal of individuals who violate laws and regulations intended to protect cultural resources. | The referred to applicant-committed mitigation measure has been revised to read: "The operators would require their personnel, contractors, and subcontractors to comply with Federal regulations intended to protect archeological and cultural resources." In addition, under the Programmatic Agreement, BBC and other operators will be required to conduct personnel training.   |
| 865       | Cultural        | Section 3.12.2 Cultural Overview contains a minor error in that it states “Gunnerson (1969) reported a skeleton with cranial deformation” at Rasmussen Cave. The skeleton had no cranial deformation.   | A correction has been made in the text.   |
| 866       | Cultural        | There is near-absence of discussion or consideration of the long-term cumulative impacts to cultural resources that would result from three or four decades of development in the region.   | Long-term cumulative impacts to cultural resources are discussed qualitatively in Section 5.12. The comment does not identify any specific deficiencies in the analysis that the BLM can respond to. Within the range of alternatives considered within the EIS, the BLM has included measures which would minimize direct, indirect, as well as cumulative impacts to cultural resources.<br><br>For examples, see response to comment #3. |
| 867       | Cultural        | I recommended that we consider multiple APE's (direct effects, setting, dust) and you expressed concerns. After discussion and our agreements below, I noted that I had no major concerns about doing APEs differently from my recommendations.   | In preparation of the DEIS, Multiple APEs were considered at the request of the SHPO. During the development of the Programmatic Agreement the BLM, in consultation with consulting parties, expanded the APE for the project. Also see response to comment #700.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
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| 868       | Cultural        | BLM land within the project area boundary should serve as the main APE, particularly for direct effects due to drilling, road construction, etc. Contact SITLA to determine if the State lands within this boundary should also be included in this APE. At the moment, it appears that private lands will not be included in this APE, unless road ROWs were needed across these lands and linked to roads on Federal lands. Highlight any actions on private lands that are considered under the jurisdiction of the project to me during your final consultation. | See response to comment #700.  |
| 869       | Cultural        | Gate Canyon Road to Myton, and the Nine Mile Canyon Road, should be considered part of the APE for increased traffic only (although you noted that you needed to speak to management).   | See response to comment #700.  |
| 870       | Cultural        | The APE for effects to setting should consist of the canyon bottom areas (if they become part of the project).   | See response to comment #700.  |
| 871       | Cultural        | The APE for dust should consist of areas with resources (such as rock art) that could be affected by dust from traffic (predominantly canyon bottom areas).  | See response to comment #700.  |
| 872       | Cultural        | Identification efforts for the increased traffic area (Gate Canon Road, Nine Mile Canyon Road) should be encompassed by existing Class I data with no additional fieldwork necessary.  | See response to comment #700.  |
| 873       | Cultural        | Effects to setting on canyon bottoms should be considered if the preferred alternative included drilling in canyon bottoms. If that were the case, we agreed that appropriate identification efforts would be determined on the basis of (1) the number and location of wells in the canyon bottoms and (2) the available data regarding cultural resources within the setting of those wells (if any) on the canyon bottom.   | See response to comment #700.<br><br>Under the Agency Preferred Alternative, there would be no wells on Federal land within Nine Mile Canyon. In addition, no surface occupancy would be permitted within Dry or Jack Canyons unless this limitation would preclude the operators from developing their valid and existing rights. Based on the findings of the directional drilling report, the BLM believes that it may be feasible to avoid the placement of well pads and associated facilities in Dry Canyon; however, some development would likely be necessary in Jack Canyon (see Figure 2-6-1). See responses to comments #753 and #875. |
| 874       | Cultural        | The dust study that will be conducted will be a good means of coping with the dust issue. The identification efforts associated with this study will depend on the outcome of the various phases of the study. Per 36 CFR 800.4(b)(2)(b), the documentation of the dust study could be used as part of phased identification efforts.  | See response to comment #53.   |

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| 875       | Cultural        | In the meeting on February 28, 2008, the BLM suggested it may be possible to use BMPs that would request the company treat State and private land developments with the same standard as BLM land developments. We encourage this approach as it would make assessing cumulative and indirect effects under Section 106 much easier, and should make it easier to reach a No Adverse Effect determination for the project as a whole.  | Under all BLM alternatives, it is recommended that BMPs applicable to Federal lands also be applied to State and Private lands. However, it should be noted the development on these lands falls outside of the regulatory jurisdiction of the BLM, and thus mitigation measures would only be applied, if required by the appropriate surface management or permitting agency, or if the operators voluntarily commit to implement these measures.   |
| 876       | Cultural        | Any potential development in canyon bottoms on State and/or private lands will be explicitly considered as part of the cumulative and indirect effects analysis in the FEIS. We recommend that an analysis of potential visual and auditory impacts of such wells be conducted based on where sites, rock art sites in particular, might be within the view and auditory range of said potential development. Using the BMPs described above would also provide a means for reducing effects from such development, particularly if these practices include analysis of potential visual and auditory effects. | The conceptual location of the two pumping stations in the canyon bottom occurs within 100 meters of previously identified rock art and rock shelter sites. Although ground disturbance activities may not directly affect these resources, there is a potential that secondary impacts, such as dust and vandalism, may adversely affect resources near the pumping stations. Site monitoring could be required at these locations per the cultural resource monitoring plan. See response to comment #35. The proposed well pads located on private land in the canyon bottoms occur next to a portion of the Nine Mile Canyon Road that has not been inventoried. Though on private property, the impacts from these pads and their associated pipelines and access, particularly via the Nine Mile Canyon Road, fall under the purview of the direct, indirect, and cumulative effects of the project. In order to determine the effects to cultural resources, the locations, pipeline, and all primary and secondary access, including the Nine Mile Canyon Road, would require Class III cultural resource inventories so indirect and cumulative impacts can be identified and mitigated. Potential indirect and cumulative impacts are similar to those described for the Nine Mile Canyon Road APE. |
| 877       | Cultural        | The DEIS does describe the potential indirect effects to sites due to increased visitation from road improvements and other factors. We recommend developing an ongoing monitoring program. This could consist of conducting surveys to set baseline conditions prior to project implementation, monitoring of samples of sites, and means of responding to changes. Such a program would make it easier to reach a No Adverse Effect determination for the project as a whole.  | See responses to comments #3 and #35.   |
| 878       | Cultural        | We note that if the final alternative does not have a clear understanding of the impacts of dust, and some type of response that will clearly mitigate those impacts, there may be a need to make an adverse effect determination and to develop mitigation.   | See responses to comments #3, #35, #651, #971, and #1311.   |
| 879       | Alternatives    | The major impact of the West Tavaputs Gas Project is the industrial traffic that goes through Nine Mile Canyon and Cottonwood Canyon to access the WTP. The BLM now admits in the DEIS (Section 5.12) that they cannot mitigate the impact of the industrial traffic   | See responses to comments #1, #34, and #651. It should also be noted that the economic costs of constructing a new route were not taken into consideration when the BLM determined that it was appropriate to eliminate certain alternative access routes from further consideration (see Section 2.8.6).   |

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|           |                 | <p>on the cultural resources by selecting any of the proposed alternatives. In reality, the only way to save the canyon from the traffic is to use bypass roads that will keep the traffic away from the Nine Mile and Cottonwood Canyons. Unfortunately, the BLM has eliminated the alternate access routes in EIS Section 2.8.6 without presenting detailed information about these decisions. This is a violation of the Utah BLM NEPA Guidebook which states that “no reasonable alternatives can be eliminated from consideration in an EIS.” The Guidebook also says that economic reasons alone cannot be used to reject an alternative. No engineering analysis has been provided to show that an east-west bypass road is not feasible across the West Tavaputs. It is clear, even to a non-road engineer that the alternative route from the Gate Canyon Road west to Trail Canyon is very reasonable since there is a road being upgraded for gas drilling north of Nine Mile Canyon. Trail Canyon itself got its name from when it was the access route in and out of Nine Mile Canyon. Trail Canyon comes to Nine Mile Canyon opposite the entrance to Harmon Canyon Road, which is the main access to the west side of the gas field on the Tavaputs. There are numerous roads already built and proposed on the West Tavaputs that would lend themselves to a bypass road system. The BLM writes about 180 miles of Gold Book roads on the Tavaputs and I (Ivan White, member of the Coalition’s Impact Research Committee) have seen these smooth, wide roads with crowns and drainage ditches and I have pictures of the Nine Mile Canyon Road that has already been badly beat up by the present traffic that has damaged the rock art and driven the sightseers out of the Canyon. The only reasonable alternative to this is a bypass road system.</p> |              |

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| 880       | Transportation            | <p>The DEIS says that the average daily traffic in the Canyon would be 550 vehicles with nine drill rigs operating on the Tavaputs. Carbon County did a 24-hour traffic count when there were two drill rigs operating and that traffic count was 340 vehicles. If you extrapolate from two drill rigs to nine, you get a daily traffic count of 1,530 vehicles! The Canyon road grew up from a wagon road, how can it withstand that kind of traffic? How can the rock art survive that? The traffic counts that the Coalition has done since 2005 verify the County Survey. The Coalition counts of sightseer traffic show a steadily decreasing number of people coming to the Canyon to see the rock art and it is clear that the word has spread about the industrial traffic and the dust.</p>   | <p>As stated in Section 3.14.2, traffic counters were placed in strategic locations to collect data for the WTP EIS between September of 2005 and October 2006. In addition, two weeks worth of visual monitoring data were gathered that verified the data. Based on the amount of data collected, it is reasonable to assume that this data provides a more realistic baseline count than the 24-hour sample collected by Carbon County. In addition, traffic estimates for the Proposed Action were developed in consultation with the operators not from baseline traffic information. A statement has been added to the EIS disclosing that baseline traffic has likely increased in the WTP Project Area since the time that the traffic data was collected, because interim development actions have increased the number of producing wells. Although the comment indicates that they have additional traffic information that is aligned with the County's 24-hour sample, this data has not been provided to the BLM.</p> <p>Section 4.11 of the FEIS indicates that based on empirical observations by frequent users of Nine Mile Canyon (e.g., Nine Mile Canyon Coalition), recreational use of the area for cultural and heritage tourism has experienced steady decline since a surge in the oil and gas development began in the WTP Project Area in 2004. These observations are supported by anecdotal information provided by the Castle County Regional Information Center in Price, that during the past two years visitor interest and inquiries about visiting the Canyon have declined significantly. Based on the proposed level of oil and gas development, it is expected that declines in visitors to Nine Mile Canyon would continue for the LOP.</p> |
| 881       | Cultural/ Monitoring Plan | <p>The BLM proposes a monitoring system wherein the BLM and the BBC would pick a monitoring company to monitor the project for compliance with the promises made as a result of the FEIS. The monitoring company would report to the BLM and BBC. This is completely unacceptable based on the last four years of experience where the BLM allowed winter drilling after promising there wouldn't be any, and couldn't mitigate the traffic problems even after they were shown photos of the damage being done. An example of a potential problem in the DEIS is where the statement is made that BBC has informally agreed to help with problems on the Gate Canyon Road resulting from the traffic. What is required is an oversight committee like the one set up in Wyoming because of the corruption in the Pinedale BLM office. The members should include stakeholders like BLM, hunters, property owners, the Nine Mile Coalition, Carbon County, SHPO, and others. The monitoring company would report to the oversight committee to ensure compliance with mitigation requirements.</p> | <p>See response to comment #1005. As a point of clarification, the third-party monitor would only report to the BLM, and not to BBC.</p>   |

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| 882       | NEPA/ General/ Cultural | <p>The BLM has consistently refused to admit that they are responsible for seeing that all significant impacts from the West Tavaputs Project are mitigated no matter where they occur or who does the impact. An example of this is the Dry Canyon Compressor Station (located in Nine Mile Canyon) which started out to have two compressors and now has eight with the possibility of two more, for a total of ten. The pollution from this compressor station has never been measured or modeled even though it is in a narrow canyon with a high concentration of dust added to the chemical emissions from station engines. The BLM insists that the pollution (visual, sound, or chemical) is beyond their responsibility to mitigate because the compressor station is on private property (BBC's). A Federal court ruled in the 1970's in the Calvert Cliffs decision that the Federal lead agency was required to see that all significant impacts were mitigated. If the impacts cannot be mitigated then the Proposed Action cannot be carried out. This applies not only to the Dry Canyon Compressor Station, but also to the traffic impact on the Gate Canyon, Nine Mile Canyon, and Cottonwood Canyon Roads, as well the impact on any of the cultural resources of the area around the West Tavaputs.</p> | <p>The air quality effects from emission sources including compressor engines at the existing Dry Canyon Compressor Station have been evaluated by the appropriate air quality regulatory authority, the Utah Department of Environmental Quality, Division of Air Quality (UDAQ). Before any new source of air emissions can be constructed and operated within the WTP Project Area, regardless of private, State, or Federal surface ownership, a permitting action must be initiated by the operator and approved by UDAQ. BBC submitted a Notice of Intent (NOI), which essentially serves as a permit application, to UDAQ for emission sources including compressor engines at the Dry Canyon Compressor Station. After proper evaluation by UDAQ, an Approval Order was issued to construct and operate the facility. The UDAQ cannot issue an Approval Order unless the applicant has demonstrated through emission rates and dispersion modeling that the proposed project will not cause or contribute to an exceedance of the NAAQS. Therefore, the maximum potential emissions from the Dry Canyon compressor station have been evaluated and determined to be in compliance with the NAAQS even though the facility is located in a narrow canyon. As per UDEQ policy, the public was afforded an opportunity to comment on the Approval Order for Dry Canyon prior to final approval.</p> <p>NEPA requires that the BLM use all practicable means, consistent with the requirements of the Act and other essential considerations of national policy, to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment (40 CFR 1502[f]). BLM must balance its decision on NEPA and other considerations and contemplated by NEPA Section 105 [42 USC § 4335] which states that: "the policies and goals set forth in this Act are supplementary to those set forth in existing authorizations of Federal agencies." The CEQ guidelines for implementation of NEPA direct only that in the ROD the agency must state whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not (40 CFR 1505.2[c]). This cumulative air quality impact analysis within this EIS evaluated the impacts of the Dry Canyon compressor engines that were present at the time the analysis was completed, as well as the new compression proposed in the alternatives. This EIS also includes numerous, salient environmental protection measures and mitigation measures that are specific to reducing air quality effects under Alternatives C, D, and E (see Table 2.6-8).</p> |
| 883       | Cultural                | <p>The EIS offers less protection for Nine Mile Canyon cultural resources than they have presently. One alternative offers lip service to having the county construct pull-outs and working with BBC to do signs and trails at the identified sites from the Special Recreation and Cultural Area Management Plan. However, that was only one-third of the plan. The plan also called for a visitor contact station and a full-time archaeologist, as well as a full time recreation planner. There would have to be temporary staff during the visitor season. This needs to be included. We can't invite people to Nine Mile without having a presence there to protect the resources and teach proper etiquette. Signs alone can't do it.</p>  | <p>See responses to comments #3, #217, #945.</p>  |

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| 884       | NEPA/ General/ Cultural | Given the proposed level of development, full time law enforcement is needed in the canyon, whether it is a Carbon or Duchesne County deputy or a BLM ranger.   | See responses to comments #945.   |
| 885       | Alternatives            | The BLM should reconsider the by-pass roads, implementation of the full recreation and use plan, and full time enforcement in the canyon.   | See responses to comments #34 and #945.   |
| 886a      | Wildlife                | The State of Utah is going to lose a large financial investment it has made in increasing the Tavaputs deer and elk herds.  | As a cooperating agency, UDWR has had the opportunity to express their concerns at multiple phases in the EIS process. In addition, official comments from the UDWR were received through the proper channels in a letter signed by John Harja (Director of the Office of the Governor, Public Lands Policy Coordination office) on State of Utah letterhead. Loss of financial investments has never been raised as a concern by the UDWR. |
| 886b      | Cultural                | If there are any inadvertent discoveries made during the course of the undertaking, the operators shall cease all operations within the WTP Project Area. The Historic Preservation Department - Traditional Cultural Resources Program shall be notified by telephone within 24 hours and a formal letter be sent within 72 hours. All work shall be suspended until mitigation/ procedures have been developed in consultation with the Navajo Nation.  | The protocol that would be followed in the case of an inadvertent discovery can be found in Appendix N (Preconstruction Cultural Resource Identification Plan).   |
| 887a      | Cultural                | At public scoping meetings held in 2005 regarding this EIS process, the BLM assured those attending that there would be no surface occupancy allowed on Federal public lands in Nine Mile Canyon. However, three of the alternatives in the DEIS, including the Agency Preferred Alternative, propose two pump stations be located in very scenic and archaeologically rich areas of the canyon, one on Federal public land and one on private property (not BBC's property). By doing so, the BLM is violating another public commitment they made in their Draft Resource Management Plan (DRMP), that there would be no surface occupancy allowed on Federal public lands in the bottom of Nine Mile Canyon. Could it be coincidence that the final decision on the DRMP has been timed to allow for some industrial surface occupancy to be approved in the canyon prior to the decision? | See responses to comments #753 and #1201.   |

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| 887b      | Socioeconomics  | There is already a shortage of housing in Duchesne County, especially in terms of rentals and RV parks necessary to house gas field workers on a temporary basis. Rising rental rates have priced some citizens out of the housing market. Employers are having a hard time recruiting employees to fill jobs outside of the energy industry due to the lack of affordable housing. Duchesne County urges the parties involved to work with the County and its communities to identify ways to provide the needed housing (private enterprise may not be able to fill the gap due to tightening lending practices and the temporary nature of the housing needed).  | Under all alternatives except Alternative D (Conservation Alternative), BBC and other operators would construct temporary worker housing locations capable of housing between 60 (No Action) and 300 (Alternatives A, C, and E) workers. In addition, on well pads where active drilling and completion are occurring, temporary housing would be provided for the well pad supervisor, geologist, tool pusher, and others required to be on location at all times. The use of worker housing, which could substantially reduce the demand for housing in Duchesne County during the development phase, was not taken into consideration in the impact analysis in order to provide the most conservative assessment. |
| 888       | Transportation  | Duchesne County stands to be impacted by increased traffic on County roads. As stated in its own comment letter dated March 12, 2007, the County has a goodworking relationship with the energy companies who generate heavy truck traffic on gravel county roads. Improvements have been made to keep the roads passable and eliminate blind corners. We expect this partnership to continue with this gas field development. Duchesne County encourages the parties involved to identify funding sources to upgrade the county roads that provide access from the Uinta Basin to the WTP. We also encourage the parties involved to request the Utah Department of Transportation to make intersection improvements at Highway 40 and Pariette Road a very high priority (Project K-1 in the US 40 Corridor Study Report recently completed by the Utah Department of Transportation is currently ranked #11 in the short term project list). This intersection is the northern gateway to Nine Mile Canyon and is already operating at a low level of service due to existing energy industry traffic. | Information from the County's March 12, 2007, letter, as well as information from other correspondences with the County regarding traffic increases on County roads, is contained in Sections 3.14.2.1 and 4.14.2.2 of the EIS, and Section 10.2 of Appendix F- Transportation Plan.  |



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| Comment # | Topic/ Resource                 | Public Comment   | BLM Response   |
|-----------|---------------------------------|--|--|
| 889       | Transportation/<br>Cultural     | We understand that Carbon County has formed a committee to study Nine Mile Canyon Road issues. Since a portion of this road traverses lands within Duchesne County, we expect to be involved in this group, with a goal of finding ways for tourism and energy development vehicles to utilize this road safely. We believe that monitoring of this road during gas field development will determine whether or not sufficient efforts are being made in this regard.            | The "Nine Mile Canyon Road Cooperative Board" led by Carbon County also includes the Duchesne County Commission, elected officials, representatives of the State of Utah, BLM, industry, special interests, and contract engineers.<br><br>A Dust Suppressant Testing Project to evaluate dust suppression techniques other than water and magnesium chloride has been administered by BBC in coordination with the Nine Mile Canyon Cooperative Board and Technical Sub-Committee. The results of this Test Project are contained in the FEIS (see Appendix R). |
| 890       | socioeconomics                  | Page 5-47 of the DEIS recognizes that "waves of transient workers" would potentially cause "disproportionate off-site community disruption in Duchesne County." We are concerned about these impacts to community and social conditions, especially since the tax revenues associated with the project will accrue mostly to Carbon County and the State of Utah. For this reason, Duchesne County will rightfully look to assistance from the state should these impacts occur. | Community and social conditions in Duchesne County and the fact that tax revenues associated with the project would accrue mostly to Carbon County and the State of Utah are discussed in Section 4.13. Duchesne County may be eligible for State-distributed permanent community impact funds generated by mineral lease revenues in the WTP Project Area.  |
| 891       | Land Use/ NEPA /<br>General     | The document does not adequately address the fact that part of the Project Area is in Uintah County, and it should be changed to include Uintah County as being within the Project Area.   | The EIS clearly recognizes that the WTP Project Area includes portions of Uintah County (see Section 1.0- Introduction and 3.6-Land Use and Status). Potential impacts to Uintah County, which would primarily be socioeconomics impacts, are discussed in detail in Sections 3.13 and 4.13 of the EIS.  |
| 892       | NEPA/ Land Use                  | Uintah County has reviewed the DEIS and found Alternative E to be consistent with Uintah County's Public Land Policy and Plan. Other alternatives, particularly Alternative D, are not consistent, as they provide protection or prohibit uses that are inconsistent with the Uintah County Policy and Plan.   | Consistency with the Uintah County plan is noted in Chapter 1 in the FEIS. However, no development is proposed within Uintah County under any of the alternatives.   |
| 893       | Transportation/<br>Alternatives | There is a Uintah County Class "D" road that provides access to the Project Area from the North. In consideration of the presence of the Uintah County road, the DEIS should be changed to provide for consultation and coordination with Uintah County with respect to any proposals that would increase traffic or create a need to upgrade said road.   | Use of this road was considered in an alternative that was eliminated from detailed analysis in Section 2.8.6 of the DEIS. The road was eliminated as an alternative access route because use would result in unnecessary and undue degradation of resources around the Green River.   |

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| Comment # | Topic/ Resource                   | Public Comment  | BLM Response   |
|-----------|-----------------------------------|---|--|
| 894       | Transportation                    | Although the document does not appear to propose road improvements, well locations or major project access across lands in Uintah County, the County requests that the DEIS be changed to provide for an annual planning meeting to be held if any such proposals are considered or undertaken. Participants in such meetings should include the company, BLM, Uintah County, private landowners, and livestock permittees.                             | The suggested annual planning meeting is unnecessary because no alternatives analyzed within the EIS contain road improvements and/or proposed well locations within Uintah County.  |
| 895       | Alternatives                      | Uintah County has previously expressed concern regarding the burial of pipelines, unless the nature of the product transported mandates such burial. It remains the County's position that visual impacts of surface pipelines and their duration are far shorter than those of buried pipelines.   | There are no proposed pipelines within Uintah County.  |
| 896       | Transportation                    | Carbon County has implemented County Ordinance #378, which the SSD believes clearly addresses concerns raised over increased road use and needed road improvements in Nine Mile Canyon. This ordinance also addresses maintenance by use of an agreement that has been implemented between Carbon County, BBC, and Petro-Canada for the roads in this area. This maintenance agreement will also be required for any new users of county public roads.  | The DEIS clearly discloses that Carbon County has implemented County Ordinance #378, and that BBC has entered into a maintenance agreement with the County for roads in the WTP Project Area, in Section 4.14.2.2 and Appendix F.  |
| 897       | Transportation/<br>Socioeconomics | The SSD strongly supports the transportation system. Carbon County has contributed, to date, approximately \$175,000.00 for improvements on Nine-Mile Canyon Road. We stand ready to participate with Carbon County to contribute additional funds to address road safety, to decrease potential harm to the archeological sites, and to create all weather access into Nine Mile Canyon that would enhance development of the West Tavaputs gas field. | The EIS recognizes that mineral revenues distributed through UDOT to Special Service Districts have and will continue to be used to improve roads impacted by oil and gas traffic. (See Section 10.3 of Appendix F).   |
| 898       | Socioeconomics                    | The year-round ability to drill and develop the gas field, will promote stability for both individuals and the community.   | The Proposed Action and Alternatives B, C, and E provide for year-round drilling in the WTP Project Area. Section 4.13 contains a discussion of impacts on community social conditions. The discussion has been expanded to include more qualitative information on the impacts associated with transient workforce. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 899       | Alternatives    | I fail to understand why you only “briefly considered but eliminated from detailed analysis” what seems to be the two best options in terms of protecting the vast cultural resources located within the study area, namely rescinding the current leases and/or seeking alternative access routes to eliminate commercial traffic within Nine Mile Canyon. I urge the BLM to seriously reconsider these alternatives.   | The BLM's rationale for dismissing these alternatives from detailed analysis is contained in Section 2.8. |
| 900       | Cultural        | The BLM should require a complete survey of all cultural sites within Nine Mile Canyon before attempting to make a decision on how the proposal might impact them.   | See responses to comments #1228 and #913.   |
| 901       | Alternatives    | The BLM should insist that the gas development company drilling wells in the WTP re-route its heavy industrial traffic away from Nine Mile Canyon and the sites of Indian petroglyphs to protect cultural resources and prevent their precipitous deterioration.   | See response to comment #34.  |
| 902       | Alternatives    | The DEIS has not considered protection of the archaeological values in the long-term and is putting them at risk by not considering alternative routes to the proposed project area that bypass or minimally transect Nine Mile Canyon.  | See response to comment #34.  |
| 903       | Alternatives    | During the scoping process, it was proposed that alternative routes to the project area be considered (DEIS, page 2-149). In the DEIS several alternatives were briefly discussed and dismissed (DEIS , page 2-150) The reasons given for not considering these alternatives do not seem any different from the issues confronted when using the proposed roads. These reasonable alternative route do not appear to have received the rigorous exploration and objective evaluation required by 40 CFR 1502.14(a) during the EIS process. | See response to comment #34.  |
| 904       | Alternatives    | The agency should consider transportation alternatives more fully and obtain a road engineering assessment for an alternative route through Trail Canyon, traversing the Nine Mile Canyon Road and continuing to the uplands via Harmon Canyon.  | See response to comment #34.  |

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|-----------|-----------------|--|--|
| 905       | Transportation  | <p>Continued use of the Nine Mile Canyon for worker camps downstream from Gate Canyon, and servicing upland camps via Cottonwood and Dry Canyons by smaller vehicles, will still call for use of the Gate Canyon Road to Nine Mile Canyon.</p> <p>These roads if continued to be used to support the gas extraction industry even with light trucks requires road improvement beyond the current condition. The solution proposed here is to engineer and pave those sections of the road that will continue to be used for industrial traffic.</p>  | <p>As an alternative to using dust suppressants, certain road segments may be improved with hard surfacing, such as asphalt or chip seal.</p> <p>In addition, past and planned County road improvements to Nine Mile and Gate Canyons are discussed in Sections 3.14.2.1, and Appendix F- Transportation Plan.</p> |
| 906       | Cultural        | There is no plan in the DEIS to mitigate archaeological values from the impact of this level of projected traffic.   | See responses to comments #217.  |
| 907       | Dust Study      | Appendix G of the DEIS presents a study of the dust problem in Nine Mile Canyon. The study points out the seriousness of cumulative dust on rock art panels and the issues around the use of magnesium chloride as a dust suppressant. The study is inconclusive about the effects on rock art with the use of magnesium chloride to harden the roads for dust control. The study included in the DEIS is only preliminary, however, and the final study should be produced so that its conclusions can be read and evaluated.   | See response to comment #53.   |
| 908       | Cultural        | I agree with the DEIS (Section 4.12.1.2.) that further actions are needed to 1) identify, develop, and implement dust suppressants that will be environmentally acceptable and effective; 2) develop treatments to remove existing dust from rock art panels; 3) implement analytical systems to measure the success of dust abatement treatments; and 4) identify and evaluate all impacted rock art panels to determine how many have been affected by dust settlement. What is needed is a timetable for these additional studies and the development of interim strategies to protect the rock art that is being impacted. | <p>See responses to comments #971 and #651.</p> <p>Since publication of the EIS, the BLM has developed interim strategies in cooperation with Carbon County, operators, and other interested parties to reduce dust within Nine Mile Canyon.</p>   |
| 909       | Cultural        | NEPA requires an inventory of cultural resources before evaluation of the project can proceed.   | This is not a NEPA requirement. NEPA requires that impacts on the human environment be analyzed (see response to comment #913).  |

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|-----------|-----------------|--|---|
| 910       | Cultural        | NHPA requires evaluation of the agency's actions regarding [cultural] resources.   | See responses to comments #8 and #10.   |
| 911       | Alternatives    | Removal of the truck traffic in the canyon, as it is now experienced, is the only acceptable way to alleviate the high risk cultural resources currently are exposed to.   | See response to comment #34.  |
| 912       | Cultural        | Contracts should be prepared for bid to archaeologists for designs that will meet the NEPA and NHPA requirements for an inventory of cultural resources within the proposed gas full development project area.   | See responses to comment #1228 and #913.  |
| 913       | Cultural        | DEIS Chapter 4.12 attempts to rely on incomplete survey data to create "Site Density Estimates," but the results can only be considered guesses without reliable data input. These data should not be used to create overview values of cultural sites within the project area. It is evident that NEPA requirements cannot be met with insufficient archaeological data to identify culturally-sensitive areas. | Given the number, size, distribution, and extent, previous cultural resource inventories provide a valid means of evaluating culturally-sensitive areas within the revised APE. Appendix O lists the previously completed cultural resource surveys within the APE. Figure 3.12-1 illustrates the previously completed cultural resource survey areas within the APE. With the exception of the Horse Bench area, most of the proposed development would occur in areas that have received considerable scrutiny from cultural resource inventories. These inventories consist of linear corridors surveyed for ROWs and seismic lines, individual well pads, all roads leading up to the WTP, the majority of the Nine Mile Canyon Road in the APE, large portions of the major canyon rims, and at least one large block. Taken collectively, these surveys have resulted in a fairly systematic examination of the APEs, resulting in sufficient site data for identifying culturally-sensitive areas. As shown in Figure 3.12-1, the previously inventoried areas can be construed as representative of significant portions of the WTP Project Area. |
| 914       | Cultural        | There is a lack in the DEIS of a sense of the care and maintenance of cultural sites over the long-term, which is called for under the Bush Executive Order cited before "Preserve America".   | See responses to comments #3 and #35.   |
| 915       | Alternatives    | No alternative routes are proposed that would bypass or shorten the route taken by industrial traffic through Nine Mile Canyon, although this was discussed during the scoping process (DEIS, page 2-149). Possible alternative routes are briefly discussed and dismissed (DEIS, page 2-150), however, such alternative routes are reasonable and need to be included within the DEIS.                          | See response to comment #34.  |
| 916       | Alternatives    | The DEIS has failed to "rigorously explore and objectively evaluate" the alternative routes.   | See response to comment #34.  |
| 917       | Alternatives    | The DEIS (page 2-150) also states that "new roads proposed in side canyons would likely impact cultural resources," is not a reason to dismiss alternative routes because all of the proposed alternatives will likely impact such resources.  | See response to comment #34.  |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
|-----------|-----------------|--|--|
| 918       | Alternatives    | Another reason stated for dismissing consideration of the alternative routes (DEIS, page 150) is that “the Bruin Point Route is problematic for numerous reasons.” Those reasons include longer drive times for traffic originating in the Uinta Basin, difficulty of maintaining the road in the winter, and potential impact to sage-grouse and big game species. Given the safety concerns with the industrial traffic operating on the narrow, fragile road through Nine Mile Canyon, the stated reasons should not exclude this alternative from consideration with a comparison to other alternatives. | See responses to comments #34, #574, #1205, and #1206.   |
| 919       | Alternatives    | A route around the mouth of Nine Mile Canyon is dismissed because it would provide motorized access into an undeveloped and inaccessible area. The other proposed alternatives would also create access into currently undeveloped and inaccessible areas, and therefore it is not reasonable to exclude the route around the mouth of the canyon from consideration.  | <p>See response to comment #34.</p> <p>Under all alternatives the operators would be granted reasonable access necessary to develop their valid and existing lease rights in the WTP Project Area. In select locations with the WTP Project Area, this would require the BLM to grant access through areas that are currently undeveloped, inaccessible, and protected by special designation.</p> <p>The Green River corridor through Desolation Canyon is the focal point of the Desolation Canyon SRMA, the Desolation Canyon NHL, and the potential Green River WSR corridor. Under no alternative is surface-disturbing activity proposed within any of these areas of special designation.</p> <p>Creating new access through this sensitive resource area would cause unnecessary and undue degradation that can be avoided by using Nine Mile Canyon or other access routes.</p> |
| 920       | Transportation  | The conditions on the Nine Mile Canyon Road will deteriorate greatly in many respects, particularly in terms of recreation (tourism, professional studies, hunting, etc.), if the proposed project pushes a greatly augmented fleet of industrial vehicles into the canyon.  | Transportation impacts, including potential road deterioration in Nine Mile Canyon, are discussed in Section 4.14.2.2, as well as in other sections in the EIS.  |
| 921       | Cultural        | Chapter 3 of the DEIS presents a broad overview of the archaeology of the WTP but does not provide sufficient information to understand what cultural resources exist in which portions of the project area, or how they will be affected by the project.  | <p>Chapter 3 of the EIS includes sufficient information to understand what cultural resources exist in which portions of the WTP Project Area and how they will be affected by the project.</p> <p>See responses to comments #689 and #913.</p>  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                              |
|-----------|-----------------|---|---|
| 922       | Cultural        | Some estimates for site density in the project area are made based on sites recorded in areas that have been inventoried, but this is clearly not sufficient. The DEIS (page 3-159) states, "As this area is relatively unknown archaeologically, interpretations of site density and patterning become extremely tenuous when attempting to extrapolate from the known (in this case those areas with sufficient archaeological coverage) to the unknown." | See responses to comments #1228 and #913. |
| 923       | Cultural        | The DEIS, due to the lack of cultural resource information from much of the area, does little to address the potential impacts to such resources in Chapter 4 (the Environmental Consequences section).   | See responses to comments #1228 and #913. |
| 924       | Cultural        | The Class I Overview that is referred to in the DEIS only demonstrates what other inventories may need to be conducted in order to gather sufficient information about the cultural resources in the project area.  | See responses to comments #1228 and #913. |
| 925       | Cultural        | The essentially piecemeal approach to initiating archaeological surveys in the proposed project area as explained the Appendix N – Preconstruction Cultural Resource Identification Plan is inadequate.   | See responses to comments #1228 and #913. |
| 926       | Cultural        | The minimal surveys of 10 acres for well pads, 5-10 acres for other facilities depending on their size, and 300 foot corridors along new wells and pipelines (150 feet on each side of the centerline) does not provide sufficient data to understand the nature of the sites, their distribution, and relationships in the very large project area.  | See responses to comments #1228 and #913. |
| 927       | Cultural        | The BLM should institute a process whereby cultural resource inventories (Class II and Class III) are conducted in the project area, so that sufficient data is available for an adequate EIS analysis. The models used in the analysis should be clearly articulated.  | See responses to comments #1228 and #913. |
| 928       | Dust Study      | Laudably, the BLM commissioned a brief study of the effects of dust on rock art in Nine Mile Canyon. It is included as Appendix G in the DEIS; however, the report is preliminary. The final report should be included so that it can be read and evaluated.  | See response to comment #53.              |

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| Comment # | Topic/ Resource                        | Public Comment  | BLM Response  |
|-----------|--|---|---|
| 929       | Cultural                               | I agree with the DEIS (Section 4.12.1.2.) that further actions are needed to 1) identify, develop, and implement dust suppressants that will be environmentally acceptable and effective; 2) develop treatments to remove existing dust from rock art panels; 3) implement analytical systems to measure the success of dust abatement treatments; and 4) identify and evaluate all impacted rock art panels to determine how many have been affected by dust settlement. What is needed is a timetable for these additional studies, and the development of interim strategies to protect the rock art that is being impacted. | See response to comment #3.   |
| 930       | Alternatives/ Cultural/ Transportation | The dust problem could be improved by paving the portions of the Nine Mile Canyon Road traversed by industrial traffic.   | See response to comment #1248.  |
| 931       | NEPA                                   | The DEIS more than sufficiently satisfies the legal requirements of NEPA. Indeed, the level of analyses contained in the DEIS far exceeds the requirements of NEPA for an EIS.  | The FEIS has been further refined in response to other comments, regardless of the adequacy of the DEIS.  |
| 932       | Socioeconomics                         | The WTP is a prolific natural gas resource that is nationally significant. The addition of this gas to Utah and the national energy market is of vital importance. The DEIS should contain a discussion on how important this is to the local economies, jobs, State, and national energy security.   | Estimated gas production from the WTP Project Area is disclosed in the EIS. The socioeconomics section of the EIS discloses the impact of the project on employment and local and State economies.  |
| 933       | Dust Study                             | Appendix G contains a comprehensive dust study that fully analyzes the treatment of cultural resources that exist or may exist within the project area.   | A final Dust Study has been included in the FEIS. See response to comment #53.  |
| 934       | Air Quality                            | BLM's air quality analysis is more than legally sufficient under the Clean Air Act.   | The air quality analysis has been revised in response to other comments received during the public comment period.  |
| 935       | Air Quality                            | NEPA is for analysis purposes and no Federal law precludes BLM from authorizing a project if any impacts to NAAQS is exceeded.  | An EIS is a disclosure document and not a decision document. One of the purposes of NEPA is make decision makers and the public aware of environmental impacts to resources that that are protected by other relevant statutory environmental laws such as the CAA, CWA, and ESA. |
| 936       | Air Quality                            | BLM is not required to comply with laws regulating air and water quality when approving resource management plans (RMPs).   | See response to comment #935. BLM is required to comply with laws regulating air and water quality under FLPMA.<br><br>In addition, it should be noted that this EIS is a full field development plan, not a land use planning document.  |



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| Comment # | Topic/ Resource      | Public Comment  | BLM Response  |
|-----------|----------------------|---|---|
| 937       | Special Designations | The BLM should continue to recognize, and not restrict, valid existing lease rights within WSAs and WCAs. BLM did not recommend to Congress that these lands be designated as wilderness. BLM recommended to Congress that these lands be returned to multiple use because they did not meet the standards to be included in the Wilderness Preservation System. Id. at 859, 863.   | See response to comment #656.   |
| 938       | Special Designations | BLM should not continue to protect [WSAs] as such and should allow all reasonable development to occur. These WSAs contain extensive oil and gas development.   | WSAs are protected under the authority of Section 603 of FLPMA and are managed according to the Interim Management Policy (IMP) and Guidelines for Lands Under Wilderness Review (BLM 1991) to preserve their wilderness values until Congress either designates them as wilderness or releases them for other uses. Under the IMP, valid and existing rights must be recognized even in if wilderness character is impaired. |
| 939       | Special Designations | The non-impairment standard does not apply to WCAs. BLM may not lawfully restrict oil and gas development in WCAs for the protection of “wilderness” values that do not even truly exist in this area. Federal Courts and the IBLA have held that while BLM may manage lands to prevent undue degradation to WSAs and designated wilderness, it may not do so if those lands are subject to an existing use.  | See responses to comments #121 and 299.   |
| 940       | Special Designations | Natural gas development in the WSAs and WCAs would not result in any undue degradation. BLM should not limit any gas development in these areas. “Undue degradation” refers to oil and gas operations not conducted under standard industry development, and mitigation procedures and practices. The West Tavaputs DEIS, under the Proposed Action, the Preferred Alternative includes mitigation measures and operational requirements that go far beyond standard industry development, and mitigation practices and procedures, to ensure no undue degradation of public lands. See, e.g., DEIS Section 2.2.12 – Additional Applicant-Committed Measures, at pages 2-43 to 2-45; Section 2.1.4 – Interim Reclamation at pages 2-19 to 2-20. | Potential impacts on wilderness characteristics in WSAs and WCAs are analyzed in Section 4.17 of the FEIS. BLM would make a finding on unnecessary and undue degradation, as it makes decisions on approval or denial of future APDs.   |
| 941       | Special Designations | BLM should maintain its current policy of not imposing the FLPMA Section 603 non-impairment standard upon non-WSA lands with wilderness characteristics.  | See response to comment #299.   |

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| Comment # | Topic/ Resource              | Public Comment   | BLM Response  |
|-----------|------------------------------|--|---|
| 942       | Special Designations         | BLM may not adopt Alternative D or any component of Alternative D in the ROD. BLM may not impose restrictions contained in Alternative D that would create an unlawful de facto non-impairment policy and unduly hinder minerals exploration and development activities.                           | <p>This EIS is a disclosure document and not a decision document. As stated in Section 1.3, the ROD will explain:</p> <ul style="list-style-type: none"> <li>•Whether to approve the Proposed Action, select a different alternative, or select a combination of alternatives;</li> <li>•The Conditions of Approval (COAs) that may be attached to the ROD and any individual permit issued subsequent to the ROD;</li> <li>•Whether all practicable mitigation was applied, and if not, why not;</li> <li>•Whether the selected alternative is in conformance with the applicable land use plan and programmatic plans developed under NEPA, or if the applicable land use plan must be amended (see Section 1.5); and</li> <li>•How the analysis of environmental impacts described in the WTP FEIS were weighted against other factors in selecting an alternative.</li> </ul>   |
| 943       | Directional Drilling         | BLM's analysis of directional drilling and the alternatives are adequate and BLM may not require directional drilling in all locations unless it is economically and technically feasible.   | The technical and economical limitations of directional drilling within the WTP Project Area are discussed in the Directional Drilling Report (see Appendix H).   |
| 944       | Alternatives                 | All alternatives are strikingly similar with small differences that seem to indicate that the BLM has already made up its mind as to the general direction of gas development on the WTP.  | <p>See response to comment #217.</p> <p>No alternative and/or combination of alternatives will be selected until the ROD.</p>   |
| 945       | Alternatives/ Transportation | The DEIS does not address the issue of traffic control/management in Nine Mile Canyon.   | <p>Traffic control/management of the Nine Mile Canyon falls under the jurisdiction of Carbon and Duchesne Counties. The EIS recognize that both Counties would likely incur costs associated with traffic enforcement in Nine Mile Canyon and that increased enforcement could potentially have bearing on traffic speeds and road deterioration rates (see Section 4.14.2.2).</p> <p>According to Carbon County, aggressive patrol has increased over the past 18 months because of increases in reported accidents. In addition, the Safety Manager has conducted traffic studies and has been attempting to identify the most prevalent locations of these accidents. Chief Deputy, Guy Adams, has stated that patrols have been increased and without setting a routine schedule that at least two cars per week are present in the NMC area. Future plans call for increased patrols, as well as continued negotiations with the BLM for funding assistance to add more patrol personnel in many outlying areas of the County. It should also be noted that new communication facilities are being placed in the NMC area to give better contact and better emergency response time.</p> |
| 946       | Alternatives/ Transportation | The issue of dust is not only an annoyance, it threatens the health of the humans and animals that must live and work in the canyon. At a minimum, sections of road along residential areas and active farm lands in the canyon should be paved to reduce potential impacts from dust and exhaust. | <p>Section 4.15.1.1 of the EIS states that "a constant exposure to respirable dusts over time could produce a decline in lung function."</p> <p>As part of the Proposed Action, the applicant has stated that as an alternative to using dust suppression, certain road segments may be improved with hard surfacing materials, such as asphalt, chip and seal, or other materials effectively eliminating dust impacts.</p> <p>Also see response to comment #651.</p>  |

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| Comment # | Topic/ Resource              | Public Comment  | BLM Response  |
|-----------|------------------------------|---|---|
| 947       | Alternatives/ Transportation | The issues of traffic control are inadequately addressed. We regularly witness trucks traveling at least 50 miles per hours roaring by our house at all hours of the day and night. We have had numerous cattle hit and killed on the road. Our fences are continually torn out by trucks sliding off the road due to high rates of speed. We have on numerous occasions been completely run off the road by trucks traveling too fast and unwilling to yield. Adequate traffic control and law enforcement must be provided in the canyon and surrounding areas. | See response to comment #945.   |
| 948       | Transportation               | The DEIS does not address issues of poor road design and maintenance that have resulted in unnecessary flooding and critical erosion throughout the canyon.   | The existing design and maintenance of BLM system roads is discussed in Section 3.14.3 and Appendix F- Transportation Plan. The poor design and maintenance of Nine Mile and Gate Canyons are discussed in Section 3.14.2.1.  |
| 949       | Wildlife/ Rangeland          | The DEIS is vague in addressing impacts to wildlife habitat and livestock grazing.  | Sections 4.7 and 4.9 of the EIS provide a detailed analysis of impacts to wildlife habitat and livestock grazing. The comment does not identify any specific deficiencies in the analysis. Therefore, the BLM can provide a detailed response.  |
| 950       | Wildlife                     | According to the Utah Division of Wildlife Resources wildlife biologist in the Price office, past and current gas well activities have had significant negative impacts on sage-grouse, mule deer, and elk. Critical winter breeding and feed grounds have been destroyed, migration patterns have been interrupted, and prime ridgetop areas have been disturbed, resulting in complete changes in historic wildlife behavior. Wildlife and livestock share much of the same winter habitat and little is identified to mitigate impacts.                        | As a cooperating agency, UDWR has had the opportunity to express their concerns at multiple phases in the EIS process. In addition, official comments from the UDWR were received through the proper channels in a letter signed by John Harja (Director of the Office of the Governor, Public Lands Policy Coordination office) on State of Utah letterhead. The EIS includes a range of alternatives designed to minimize impacts to resources of concern including sage-grouse, mule deer, and elk. Under alternative D, there would be seasonal closures of crucial winter habitats in the WTP Project Area. Under Alternatives C and E the BLM in cooperation with UDWR has developed special protection measures and a wildlife mitigation plan to partially offset impacts to these species. |
| 951       | Wildlife/ Rangeland          | At a minimum, roads should be rerouted out of prime ridgetop/sagebrush areas and well pads should be located out of prime grazing habitat. Disturbed areas should be reclaimed as quickly as possible, and fences around mud pits should be carefully maintained.   | See response to comment #192. Although the comment did not identify what constitutes “prime grazing habitat”, it should be noted that all well pads are conceptual and appropriate locations would be determined on a site-specific basis. Disturbed areas would be reclaimed according to specifications of the BLM or UDOGM, as appropriate (see Sections 2.1.4 and 2.1.6). Language has been added to Section 2.1.2 to include provisions for the maintenance of reserve pit fences.   |

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| Comment # | Topic/ Resource      | Public Comment  | BLM Response  |
|-----------|----------------------|---|---|
| 952       | Vegetation           | The DEIS does not specifically address the issue of potential invasive species (particularly weeds) that will undoubtedly be brought to Nine Mile Canyon by the massive numbers of trucks that are and will be in the canyon.   | See response to comment #152. The EIS acknowledges that the proposed development could result in the spread and introduction of noxious weeds into the WTP Project Area along roadways and other disturbed areas. The potential sources of weeds and direct, indirect, and cumulative impacts of invasive species (particularly weeds) are addressed in under Vegetation in Section 4.8 (see alternative-specific sub-sections entitled Invasive and Noxious Plants) and Section 5.8. The potential impacts of weed infestation are also addressed under rangeland management and wild horse impact analyses, under several of the species-specific wildlife impact analyses, and within the analyses of impacts to special status plant species.   |
| 953       | Vegetation/ Land Use | I am concerned that landowners are likely to bear the entire cost of managing invasive species, as it is my experience that few people have any awareness of the serious consequences of invasive species.  | As indicated in the response to comment #152, weed control is an important component of the Proposed Action and BLM action alternatives within the EIS. As indicated in Table 1.6-1, the operators would be required to comply with the Noxious Weed Act. As proposed by the operators in Table 2.2-6, "the operators would be responsible for... noxious weed control, or other measures as deemed appropriate." Furthermore, as indicated in Table 2.6-8, under Alternatives C, D, and E, "an Approved Pesticide Use and Weed Control Plan would be prepared and implemented in consultation with the Authorized Officer of the appropriate surface management agency. Weed monitoring would be continued on an annual basis (or as frequently as the surface management agency determines) throughout the LOP. The Pesticide Use and Weed Control Plan would prescribe application methods that account for the reclamation objective of re-establishing indigenous forbs, shrubs, and trees in addition to grasses." The operators would incur the expense of all project-related weed control, maintenance, and management activities. |
| 954       | Vegetation           | Baseline data should be collected to identify the extent of current problems of noxious weeds in the canyon, and that a collaborative plan (including landowners and gas companies) is developed to manage and control invasives that are introduced.   | Section 3.8.4 of the EIS states that "a weed inventory completed by Carbon County in 2005 identified populations of noxious weed species within the WTP Project Area. Nearly all weed species found within the WTP Project Area were located along existing transportation corridors. Black henbane ( <i>Hyoscyamus niger</i> ), the most prevalent noxious weed species, was found largely on the western side of the WTP Project Area along existing roads. Table 3.8-3 lists the occurrence of known invasive and noxious weeds within the WTP Project Area, including those identified and published by the Utah Commissioner of Agriculture and Food and Carbon County, or others observed by the BLM or USFWS." See also response to comment #152.  |
| 955       | Land Use             | Impacts to private landowners have been inadequately addressed in the DEIS. As the numbers of people traveling through Nine Mile Canyon to service the natural gas industry increase, impacts to private landowners also increase. We have experienced considerable theft and vandalism of our property.  | Impacts to private landowners are discussed qualitatively in Section 4.6. Increased theft and vandalism has been added to the bullet list of potential impacts. The comment does not point out any other specific deficiencies in the analysis that the BLM can respond to.   |
| 956       | Land Use             | As private landowners, we must spend considerable time and money merely to protect our resources. We receive no compensation from any gas companies for the impacts their activities bring to us. These impacts should be identified and recognized and that gas companies work with landowners to repair and mitigate damages to private property. | See response to comment #955.   |

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| Comment # | Topic/ Resource       | Public Comment   | BLM Response   |
|-----------|-----------------------|--|--|
| 957       | Alternatives          | If the WTP, including Nine Mile Canyon is to retain any of its historic flavor, preserve its wonderful and unique cultural resources, successfully maintain its outstanding wildlife resources, and keep in balance its sensitive ecosystem, the BLM's DEIS must be redrafted to include more acceptable alternatives aimed at these objectives. | See responses to comments #217 and #1316.  |
| 958       | NEPA/ General         | The DEIS fails to identify "other operators" holding leases within the Project Area.   | <p>The BLM did not specifically name the "other operators" with leases in the WTP Project Area because it is common in the oil and gas industry for existing leases to change hands. In addition, if the BLM were to decide to lease unleased lands within the WTP Project Area, it would occur through a competitive lease sale, thus potential lessees are unknown at this time.</p> <p>The decision made in the ROD for this EIS will pertain to all operators that currently or may operate in the future within the WTP Project Area. Thus, identifying them by name is irrelevant.</p> |
| 959       | Cumulative Impacts    | This document fails to scientifically address cumulative impacts, past, present and foreseeable.   | Cumulative impacts associated with relevant past, present and reasonably foreseeable future actions are addressed in Chapter 5 of the EIS. The comment does not identify any specific deficiencies in the analysis to which the BLM can provide a detailed response.   |
| 960       | Compliance Monitoring | Given the BLM's past history with their EAs and lack of public participation, it is imperative to create an oversight committee to monitor actions of the Agency.  | See response to comment #1005.   |
| 961       | General               | I expect and look forward to your written response regarding my concerns.  | All substantive comments have been responded to within the FEIS. Due to the volume of comment letters received it would not be practical for the BLM to respond to individual comment letters.   |
| 962       | NEPA                  | The WTP Drilling Program EA (UT-070-2004-28) known as the 38 Well EA was immediately departed from upon the arrival of the Energy Act in late 2005. Since that time, NEPA has basically been invalidated by the BLM with their use of CXs to accelerate drilling.  | Section 1.1, (Background) recognizes that natural gas development within the WTP Project Area has continued under categorical exclusions authorized by provisions of the Energy Policy Act.  |
| 963       | Transportation        | Any and all aspects of maintenance or reconstruction in Nine Mile are to be confined to the original disturbed width. Any variation of the original width must be done through a ROW grant and applicable Federal laws.  | The comment is correct. On Federal lands any maintenance, construction, or realignments outside of the present disturbed width would require a Title V ROW. ROWs would be analyzed in compliance with all applicable Federal Laws.   |

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| Comment # | Topic/ Resource                        | Public Comment   | BLM Response   |
|-----------|--|--|--|
| 964       | Transportation                         | Just prior to release of the DEIS, the BLM granted over 80 miles of road ROW to Carbon County within the Project Area. This grant included the Cottonwood Canyon Road, Peter's Point, Horse Bench Road, Cedar Ridge Road, Flat Iron Mesa Road and the Cold Springs Road. A portion of the grant included Indian Land. Said grant should have been fully disclosed in this document and invalidates the entire set of maps and may in fact alter the leases themselves. | Since publication of the DEIS, Carbon County has voluntarily relinquished their Title V ROWs. BLM recognizes that Carbon County has demonstrated an interest in acquiring Title V ROWs to a network of BLM system roads in the WTP area. As ROW applications are submitted on these roads, BLM will evaluate them in compliance with NEPA, complete necessary consultations, and make a decision on the issuance of grants to these roads on a case-by-case basis. Any ROW grant issued by the BLM would include stipulations, including maintenance requirements and standards, sufficient to address resource issues and concerns. |
| 965       | Transportation                         | Granting a 66-foot Title V ROW to the County on various roads in the WTP Project Area will only encourage further impacts to cultural and historical sites in and adjacent to these and other BLM roads in general.  | See response to comment #964.  |
| 966       | Cumulative Impacts                     | No attempt has been made to quantify cumulative impacts on the environmentally sensitive resources, nor has the BLM scientifically analyzed what the effects would be on the resources. It is unclear how protecting the other resources remotely prohibits development of industry's valid existing rights.   | Cumulative impacts have been quantified for air quality, soils, water, vegetation, rangeland management and wild horses, wildlife and fisheries, recreation, special designations, and transportation. Each of these analyses incorporates the best available scientific information.  |
| 967       | Alternatives/ Cultural/ Transportation | The "Final and unique component" of the Agency Preferred Alternative will not alleviate the safety hazards and impacts created by thousands of vehicles.   | The DEIS did not claim that the Public Safety/Recreation Mitigation discussed in Section 2.6.1.6 would "alleviate" the safety hazards and impacts created by increased industrial traffic. However as discussed in the DEIS, the measure would "reduce transportation-related safety concerns." Safety hazards and concerns will also be partially mitigated by implementation of a long-term dust suppression plan (see response to comment #651).  |
| 968       | Alternatives                           | With minor modifications, the BLM road in Trail Canyon could have been utilized. Had the BLM required a comprehensive engineering study to be done in regards to potential alternate routes to and within the WTP Project Area, major impacts to Nine Mile Canyon would have been significantly reduced.   | See response to comment #34.   |
| 969       | Air Quality                            | Air quality within the Canyon bottom has and is being categorically disregarded, as the Dry Canyon compressor station is nearly five times larger than portrayed in the 38 Well EA.  | See response to comment #882.  |
| 970       | Air Quality                            | Soot attests incomplete combustion translating to significant air pollution problems, which in turn prompts the question, why are the pine trees around the station dying from the top down? Although Carbon County's Business License explicitly states BBC will comply with all Federal, State and local laws, the BLM is mandated to assure compliance.   | See responses to comments #345, #882, and #935.  |

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| Comment # | Topic/ Resource       | Public Comment   | BLM Response  |
|-----------|-----------------------|--|---|
| 971       | Alternatives/ General | The BLM has done little to mitigate the dust in the Nine Mile Canyon or on the Plateau as 100 percent opacity is the rule not the exception. The concentration of dust in the canyon has and is taking its toll on people, wildlife, and vegetation.   | <p>The failure of past dust suppression efforts is clearly recognized within the WTP EIS (see section 4.14.2.4). Impacts of dust on various resources including human health and safety, wildlife, vegetation, and cultural resources are discussed in the appropriate resource sections.</p> <p>Subsequent to the publication of the DEIS, the Nine Mile Canyon Road Committee approved a dust suppression plan developed by contract engineers (see Appendix R). Prior to developing this plan, the engineers tested the effectiveness of various dust suppressants within the WTP Project Area. Since the summer of 2008, BBC and Carbon County have been applying dust suppressants in Nine Mile Canyon between Harmon and Cottonwood Canyon. Dust suppression will continue under all alternatives evaluated in this EIS. Under Alternative E and the WTP PA dust suppression efforts will be expanded to include the entire APE, which includes areas outside the WTP Project boundary.</p> |
| 972       | Figures               | The size and scale of the maps are such that it is impossible to obtain meaningful information from them. The legends have conflicting information on many of the maps. Symbols are not consistent within the group in many cases. Bright colored background on maps intended to be informative does not constitute accuracy or make them legible. | Larger size maps were made available online and are available upon request from the Price Field Office. No specific information was provided as to which maps have conflicting or inconsistent information; however, all the maps have been reviewed and changes made in response to other public comments.   |
| 973       | Alternatives          | None of the alternatives in this document provides mitigation for the industrial impacts on cultural resources.  | See responses to comments #3 and #217.  |
| 974       | Alternatives          | None of the alternatives re-route the industrial traffic to alternate roads to by-pass Nine Mile Canyon.   | See response to comment #34.  |
| 975       | Alternatives          | The alternatives BLM is considering were written and advocated by the proponent, BBC; consequently, BLM management and BBC management are of one mind and public comment on the alternatives is almost meaningless.  | See response to comment #217.   |
| 976       | Alternatives/ NEPA    | BLM should pull this DEIS and write another draft with real mitigation options.  | <p>The comment does not provide specific examples of mitigation deficiencies in the document or additional mitigation measures that should be considered in more detail.</p> <p>Also see responses to comments #217 and #1316.</p>  |
| 977       | Alternatives          | This DEIS does not include re-routing industrial traffic to mitigate adverse effects.  | See response to comment #34.  |

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| Comment # | Topic/ Resource                    | Public Comment   | BLM Response   |
|-----------|------------------------------------|--|--|
| 978       | Consultation                       | BLM should grant consulting status to groups like the Nine Mile Canyon Coalition, the National Trust for Historic Preservation, Utah Rock Art Research Association, the Utah Professional Archaeologists Council, and the Utah Statewide Archaeological Society. Inclusion of these and other groups in canyon issues is badly needed if preservation is to be fostered and balance restored to multiple-use of resources. | See responses to comments #8.  |
| 979       | Noise                              | The DEIS does not carefully consider the impacts of noise and other drilling-related disturbances on either Desolation Canyon (a national historic landmark) or Nine Mile Canyon, though these factors would significantly affect the experience of visitors to both of those areas.   | See responses to comments #1378 and #822.  |
| 980       | NEPA/ Special Designations         | The authors of the draft have ignored the BLM's own river management policy for Desolation Canyon, which provides that there is to be no drilling authorized within sight or sound of the river.   | See response to comment #139.  |
| 981       | Alternatives/ Special Designations | Even though the BLM is considering approving an action that would destroy the wilderness values of both the Desolation Canyon and Jack Canyon areas, your DEIS did not even examine the option of protecting these two special areas as WSAs.  | See response to comment #160.  |
| 982       | Special Designations               | This plan would impact the first 34 miles of Desolation Canyon, an area renowned for its remoteness, unimpaired beauty, and wilderness characteristics. The developments proposed by the BLM in this plan will seriously damage these irreplaceable resources.   | The DEIS addresses impacts to Desolation Canyon in its analysis of the Desolation Canyon NHL, the eligible Green River WSR, Desolation Canyon WSA, the Desolation Canyon SRMA, the Desolation Canyon WCA.  |
| 983       | Special Designations               | Infrastructure for this project would be clearly visible from the river for 34 miles.  | A viewshed analysis (see Figure 3.16-7) has been conducted to show those areas that would be within the viewshed of the Green River. Under various alternatives (A, C, and E), up to three wells could be constructed within the viewshed of the river. However, Alternatives C and E contain mitigation measures (see Table 2.6-8) intended to reduce visual impacts. |
| 984       | Alternatives/ Special Designations | All the draft alternatives improperly infringe on the Desolation Canyon Wild and Scenic River Study Area.  | See response to comment #1289.   |
| 985       | Special Designations               | Every one of the draft alternatives improperly infringes on the Jack Canyon WSA.   | See response to comment #1289.   |



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| Comment # | Topic/ Resource                | Public Comment   | BLM Response  |
|-----------|--------------------------------|--|---|
| 986       | Wildlife/ Special Designations | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and the adverse impacts to these critical resources by gas drilling must be considered.  | <p>It is unclear what is meant by wilderness resource surveys. However, it should be noted that lands within the WTP Project Area were inventoried to identify areas with wilderness characteristics in 1978, 1999, and 2007 (see Sections 3.17.2 and 3.17.3). Direct, indirect, and cumulative impacts to WSAs and non-WSA lands with wilderness characteristics are discussed in Sections 4.17 and 5.17.</p> <p>Wildlife studies have been and will continue to be conducted as part of ongoing and future natural gas development within the WTP Project Area. For example, as explained in Section 3.10.2.1 of the EIS, annual Mexican Spotted Owl (MSO) surveys have been completed in the WTP Project Area since 2001. In another example, big game species and sage-grouse populations and habitats within the WTP Project Area are carefully monitored by the UDWR and BLM. The data used to prepare this EIS reflect the information provided by those ongoing monitoring efforts. Similarly, as outlined in Table 2.6-8, "prior to any surface-disturbing activities proposed between February 1 and August 31, all steep areas and areas with trees within 0.5 mile of proposed construction sites would be surveyed for the presence of raptor nests. If occupied raptor nests are found, construction, drilling, and completion would not occur within species-specific buffer radii during the species-specific active nesting season (as outlined in the U.S. Fish and Wildlife Service, Utah Field Office's "Guidelines for Raptor Protection From Human and Land Use 30 Disturbances"), unless topographic or vegetative characteristics obscure visual and auditory impacts from the nest. Raptor nest inventories would be funded by the operator." These measures illustrate the BLM's requirement that any necessary wildlife surveys would be completed prior to individually-permitted surface-disturbing activities. Direct, indirect, and cumulative impacts to wildlife are considered and analyzed in Sections 4.9, 4.10, 5.9, and 5.10.</p> |
| 987       | Recreation/ Socioeconomics     | Each of the alternatives fails to take into account the adverse impact this gas field development will have to the roughly 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.                                 | See response to comment #119.   |
| 988       | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, airborne contamination or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river. | <p>Drilling locations are not proposed within 1/2-mile of the Green River under any of the alternatives analyzed in detail.</p> <p>As outlined in Section 1.6.5 of the EIS, the operators would be required to comply with various Federal, State, and local laws and regulations designed to prevent or respond to liquid spill, airborne contamination, and handling and disposal of solid and hazardous wastes. Table 1.6-1 summarizes some of the major Federal, State, and local permits and approvals applicable to the project, which specifically respond to this comment.</p>  |
| 989       | Alternatives                   | The BLM must consider at least one no-drill alternative that has no drilling, no new roads, and no new development.  | See response to comment #1539.  |
| 990       | Cultural                       | The DEIS preferred Alternative places archeological resources to Nine Mile Canyon at predictable and certain risk.   | See responses to comments #1, #3, #217, #1311.  |

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| Comment # | Topic/ Resource              | Public Comment   | BLM Response   |
|-----------|------------------------------|--|--|
| 991       | Alternatives/ Transportation | Unlike the situation when exploration activities were first approved, that risk is no longer dismissible as hypothetical or easily mitigated. Those who have traveled Nine Mile Canyon during the past 4 years as gas exploration activities were conducted, are aware that, although dutifully executed, plans to control dust generated by vehicular traffic failed.   | See responses to comments #971 and #651.   |
| 992       | Alternatives                 | The DEIS preferred alternative offers a new plan that is essentially a slightly modified version of the old, two sentence dust suppression plan of the original Environment Assessment (UT-070-2004-28), a plan that never worked.   | See responses to comments #971 and #651.   |
| 993       | Alternatives/ Transportation | The fact that the BLM is not the controlling authority of Nine Mile Canyon Road is a critical loophole. That gap may offer the BBC an opening to fulfill its obligations by simply adhering to the same method and schedule to suppress road dust it has always used, a strategy that didn't protect rock art when traffic was a fraction of that that which will accompany full development.  | See response to comment #651. As part of the WTP PA Carbon County, who is a signatory to the document, has agreed to assist BBC with dust control in Nine Mile Canyon.   |
| 994       | General                      | The DEIS does not provide the reader any indication of which resources might be threatened by road dust or the likelihood that such a threat will materialize as a consequence of this lack of clear authority over road conditions and operations.  | <p>The BLM clearly discloses in the EIS that Carbon and Duchesne County have authority over maintenance of the Nine Mile Canyon Road (see Sections 3.14, 4.14, and Appendix F). The BLM has been working in coordination with the Counties to ensure that dust generated by project-related traffic would be reduced.</p> <p>The impacts of dust are discussed in impact analyses for various resource sections including air quality, health and safety, vegetation, cultural resources, visual resources, recreation, transportation, and water resources.</p> |
| 995       | General/ Cultural            | Unless the BLM can modify this plan to assure effective dust abatement along the entire Nine MileCanyon byway and primary project routes, or attach conditions of acceptance that will unambiguously hold BBC accountable for uniform road maintenance standards that will meet necessary protective levels, full field development will violate the principles of our national energy policy which mandates energy development without undue resources degradation. | See responses to comments #3, #651 and #971. As discussed in Sections 2.4.2.2, 2.5.1.2, and 2.6.2.2, the BLM would require operators to construct, upgrade, and maintain roads on Federal lands to standards established in the Gold Book (DOI-USDA 2007); the BLM Manual 9113-Roads (BLM 1985); and the Price Field Office's Hydrological Modification Standards for Roads (Appendix 19 of the Draft Price RMP EIS [BLM 2004]).   |
| 996       | Transportation Plan          | None of the suggested EPA-approved suppressants can be stipulated as risk free at this time.   | The potential environmental impacts of alternative dust suppressants were discussed in Appendix F of the DEIS. The effects of suppressants proposed for use by BBC and other operators are now discussed specific resource sections within the WTP EIS. Implementation of the long-term water resources and cultural resource monitoring programs will allow the BLM to monitor the impacts of these suppressants.   |

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| Comment # | Topic/ Resource                | Public Comment   | BLM Response  |
|-----------|--------------------------------|--|---|
| 997       | Cultural                       | No one can specify how much rock art is under threat, how dust already obscuring rock art can be mitigated, and how extensive abatement efforts must be to assure preservation.  | See responses to comments #1 and #3.  |
| 998       | General                        | Although the BLM notes that paving the primary roads serving the project would eliminate the threat of dust, a meaningful analysis of the problems linked to such actions is not provided.   | See response to comment #1248.  |
| 999       | NEPA                           | The DEIS does not establish a framework for monitoring and adaptive management essential for project of this magnitude. Reviewing the NEPA Handbook (H-1790-1) that is the basis for the DEIS, if information regarding impacts is incomplete or unavailable, monitoring efforts demand high priority. | The EIS contains a framework for monitoring and adaptive management of wildlife resources within the WTP Project Area (see Special Protection measures for Wildlife in Appendix C and E as well as the BBC and Agency Wildlife Mitigation Plans).<br><br>The EIS has also been revised to include a cultural resource monitoring plan, a water resources monitoring plan, and a dust suppression plan with management options should the monitoring results show adverse impacts.   |
| 1000      | Cultural                       | A comprehensive cultural resources monitoring and assessment plan should have appeared in the DEIS.  | See responses to comments #3 and #35.   |
| 1001      | Cultural                       | The FEIS and/or the decision record should contain sufficiently detailed plans for monitoring, mitigation, and enforcement to ensure protection of resources in its conditions of acceptance.  | See responses to comments #1272 and #1005. The EIS includes monitoring compliance plan (Appendix D) to ensure compliance with specific mitigation measures. In addition, the EIS includes specific monitoring plans for cultural and water resources in the WTP Project Area. As part of the special protection measures for wildlife, monitoring will also be completed for elk, mule deer, and sage-grouse.   |
| 1002      | Cultural                       | The preferred alternative time frame, basic geography, and lack of archaeological resource inventories mean that the cumulative impacts of full field development pose a predictable and substantial threat to Nine Mile Canyon archaeological resources.  | Sections 4.12 and 5.12 of the EIS provide detailed analysis of the potential direct, indirect, and cumulative effects of the project on historic properties. Also see responses to comments #1228 and #913.   |
| 1003      | Cultural                       | It is not actually possible to gauge the full impact because archaeological resource inventories to support development remain incomplete and maps of affected areas in the canyon were never compiled.  | Sections 4.12 and 5.12 of the EIS provide detailed analysis of the potential direct, indirect, and cumulative effects of the project on historic properties. Also see responses to comments #1228 and #913.   |
| 1004      | Compliance and Monitoring Plan | It is in the public interest to require BLM to produce a plan that guarantees sufficient monitoring, oversight, and accountability to conserve the features of the public lands for future generations.  | See responses to comments #1005 and #1272.  |
| 1005      | Compliance and Monitoring Plan | Rather than turning monitoring and reporting responsibilities over to an undesignated third-party, the BLM, as the sole guarantor of the public trust and acting in the public interest, must commit to full involvement in the continuous on-site monitoring and frequent assessments of operations.  | On BLM-administered lands, the BLM is responsible for approving a project component's final APD, the surface use and subsurface drilling programs, and appropriate mitigation, compliance, and reclamation measures.<br><br>With oversight and guidance from the BLM, a third-party contractor would be responsible for monitoring and compliance reporting (Appendix D).<br><br>BLM personnel would retain responsibility for enforcing applicable laws, regulations and Onshore Orders, and conducting their regular Environmental/Surface Inspections. |

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| Comment # | Topic/ Resource       | Public Comment  | BLM Response   |
|-----------|-----------------------|---|--|
| 1006      | Alternatives/ General | Based on the hard experience of the exploratory phase experience, either the EIS or decision record must detail an adaptive management program based on explicit stipulations and viable enforcement mechanisms to ensure resources are protected as energy development proceeds.   | See responses to comments #999 and #1272.  |
| 1007      | Alternatives          | It is imperative that truck traffic be rerouted around Nine Mile Canyon in order to save the Canyon's treasured rock art.   | See response to comment #34.   |
| 1008      | NEPA                  | The WTP Natural Gas Full Field Development Plan-DEIS UT-070-05-055 does not meet requirements for adequate disclosure of impacts and reasonably foreseeable consequences of Federal actions as required by NEPA.  | The comment lacks the specific examples and is so general that BLM cannot provide a specific response.   |
| 1009      | Cultural              | There is no prohibition on disclosure of locations of sites that are already known to the public, so the failure to show the relationships between these publicly known sites and proposed development merely constitutes obfuscation of the impacts and prohibits reasoned comments on the sufficiency and relative merits of proposed alternatives. | See response to comment #913.  |
| 1010      | Cultural              | I request that the BLM cancel comments on this Draft and re-issue a revised Draft that includes the mapped locations of publicly known rock art sites and proxy raster based sensitivity models of predicted archeological resource locations.  | It is unclear what is meant by proxy raster based sensitivity models'; however, the BLM is assuming this regards predictive modeling of site locations. Therefore, see responses to comments #1316, #913, and #1228. |
| 1011      | Cultural/ NEPA        | The existing data presentation provides no basis for reasoned consideration of impacts on archaeological resources on a quantitative basis as required by the spirit and letter of the National Environmental Policy Act or the National Historic Preservation Act.   | The comment does not identify any specific deficiencies that the BLM can respond to.   |
| 1012      | Consultation          | Involvement of non-profit professional and avocational archeological conservation organizations could resolve conflicts and produce alternatives that could truly allow the public to get the disclosure of impacts to evaluate on their own the government decisions that are supposed to be "in the public interest."                               | See response to comment #8.  |
| 1013      | Alternatives          | The DEIS fails to evaluate an alternative access route to the proposed gas field development area.  | See response to comment #34.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 1014      | Alternatives    | While the BLM did briefly discuss alternative access routes and the reasons these alternatives were eliminated from detailed study on p. 2-149 and 2-150 of the DEIS, an alternative route should have been considered in the reasonable range of alternatives due to its identification as a substantive issue during scoping (DEIS p. 1-19), and the importance of Nine Mile Canyon as a cultural and recreational resource.   | See response to comment #34.                                |
| 1015      | Alternatives    | An access route that avoids Nine Mile Canyon would resolve degradation of rock art within the canyon. While they may shift the cultural resource deterioration to other resources in the area, sufficient information has not been presented within the DEIS to make that evaluation.  | See response to comment #34.                                |
| 1016      | Alternatives    | All of the currently proposed alternatives include the same potential impacts that BLM has used to eliminate an alternative route from detailed study.   | See responses to comments #34, #574, #577, #919, and #1206. |
| 1017      | Alternatives    | The DEIS for the proposed WTP Gas Field Development Plan has identified many potential effects resulting from increased traffic in Nine Mile Canyon to important cultural and recreational resources. Therefore, the BLM has a responsibility to present an alternative that avoids Nine Mile Canyon in order to provide detailed information about the effects of an alternative access route, so it may be compared against the current proposed alternatives.   | See response to comment #34.                                |
| 1018      | Alternatives    | None of the proposed alternatives keep the damage caused by industrial traffic to the antiquities and nature to a minimum. Utah's BLM NEPA Guidebook says "no reasonable alternatives can be eliminated from consideration in an EIS" and that economic reasons alone cannot be used to reject an alternative. Please consider a reasonable alternative. There are plenty of existing routes that would better bypassvulnerable areas. For instance, by upgrading only 6 miles of the existing road through Trail Canyon, industrial traffic would be cut by 66 percent. | See responses to comment #34and #217.                       |
| 1019      | Transportation  | The DEIS says the average daily traffic with 9 drill rigs would be 550 vehicles. Carbon County counted 340 vehicles with just 2 drill rigs operating.  | See response to comment #880.                               |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                                      |
|-----------|-----------------|---|---|
| 1020      | Alternatives    | Surface occupancy sites have not been specified adequately. At the 2005 public scoping meeting, BLM said there would be no sites on public lands in Nine Mile Canyon, yet 3 of the alternatives in the DEIS propose a pump station on Federally-owned land (which just happens to be one of the most scenic and archaeologically abundant areas of the canyon).   | See responses to comments #753 and #1201.         |
| 1021      | General         | <p>Full and realistic disclosure cannot occur due to the dearth of baseline measurement and information.</p> <ul style="list-style-type: none"> <li>• Industrial chemicals' effect on the antiquities, water, air, wildlife</li> <li>• Effect of traffic vibration on antiquities.</li> <li>• Inventory of antiquities/site/rock art</li> <li>• Impact on tourism</li> <li>• No independent oversight committee to measure and monitor the situation regularly and frequently.</li> </ul> | See previous responses to more specific comments. |
| 1022      | Alternatives    | The BLM only "briefly considered but eliminated from detailed analysis" what seems to be the two best options in terms of protecting the vast cultural resources located within the study area, namely rescinding the current leases and/or seeking alternative access routes to eliminate commercial traffic within Nine Mile Canyon. BLM should seriously reconsider these alternatives.  | See responses to comments #217 and #34.           |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                              |
|-----------|-----------------|--|---|
| 1023      | Cultural        | While the “Dust Study” indicated there was damage being done to the rock art, it only looked at a handful of the thousands of known, and perhaps thousands more yet undiscovered sites. Further, there appears to have been no effort to survey and catalog all of the precious and irreplaceable rock art sites within the canyon. I am certain that if there were only say, five sensitive cultural sites, the BLM would have required that the DEIS address the possible impact on all five sites. Why then, has the BLM not even required the applicant to conduct a survey to identify exactly how many sites exist, and their locations? BLM should require a complete survey of all cultural sites within Nine Mile Canyon before even attempting to make a decision on how the proposal might impact them. | See responses to comments #913 and #1228. |
| 1024      | Alternatives    | The BLM should reconsider an alternative that the gas companies drilling in the WTP Project Area re-route their traffic away from sites of Indian petroglyphs to protect them and prevent their precipitous deterioration.   | See response to comment #34.              |
| 1025      | Cultural        | The DEIS provides no sufficient data as to what extent cultural resources will be affected by this project. The DEIS does not make clear what or how many cultural resources are in the area and further states that “this area is relatively unknown archaeologically” (DEIS pg 3-159).   | See responses to comments #1228 and #913. |
| 1026      | Cultural        | The current DEIS contains inadequate information on culturally-sensitive areas.  | See responses to comments #1228 and #913. |
| 1027      | Cultural        | The DEIS failed to address an alternative route that would alleviate the negative effects of this project on Nine Mile Canyon. After seeing on the maps the several hundred new roads that have already been made in this area because of oil development, it is absurd that an alternate route is not being seriously considered. Such an alternative is viable and needs to be considered as the BMP in avoiding damage to historic properties.  | See response to comment #34.              |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
|-----------|-----------------|--|--|
| 1028      | Cultural        | The proposed preconstruction plan for cultural resources is insufficient and non-comprehensive in scope. It is unclear in this document as to how identification efforts will compensate for indirect impacts that are inevitable.   | The EIS, and specifically the WTP PA contain a number of measures intended to minimize indirect impacts to cultural resources. See response to comment #3. |
| 1029      | Cultural        | BLM planning and cultural resource preconstruction survey requirements that currently articulate scattered Section 106 clearance surveys should be modified and augmented to include additional Class II and/or Class III block surveys of poorly understood areas within the larger project area, and that these surveys should be designed to address valid scientific research questions with a potential to make significant contributions to an understanding of prehistoric lifeways in the region. Through proper consultation, Class II and/or Class III block surveys could be considered within the context of mitigation of cumulative adverse effects. | See response to comments #913 and #1228.   |
| 1030      | Cultural        | The survey standards articulated in Appendix N should be modified to include provisions for spatially broader areas of potential effect, including the documentation of all sites visible from a vehicle access route regardless of distance, as well as wider corridors that are consistent with the findings of Nickens et al. (1991) and Spangler, Arnold and Boomgarden (2006). Regardless of which alternative is chosen, all cultural sites visible from an access corridor should be thoroughly documented and monitored for future adverse impacts.  | See responses to comments #3 and #35.  |
| 1031      | Cultural        | The DEIS should be clarified and augmented to indicate that reclamation upon abandonment will include the recovery of all roads constructed as part of the development.  | See response to comment #836.  |
| 1032      | Cultural        | The FEIS must also fully consider the future impacts to cultural resources (and other resources) of unrestricted and uninhibited public access into the WTP Project Area due to operator improvements to major access roads.   | See response to comment #587.  |



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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 1033      | Cultural        | The DEIS should be modified to include more thorough discussions of BLM efforts to test the validity of any predictive model used as part of the planning process.   | See response to comment #837.   |
| 1034      | Cultural        | The DEIS should be modified to more clearly explain where impacted sites would be located (canyon corridors versus mesa tops), including the relationship of impacted sites to the proposed National Register District for Nine Mile Canyon.   | See responses to comments #1310, #36, #913, and #1228.  |
| 1035      | Cultural        | Given the BLM's application in Chapter 4 of an "indirect" impact standard to impacts that are clearly direct impacts (e.g., dust accumulation), the DEIS should more thoroughly examine, articulate, and tabulate the impacts, conflicts, and other factors related to all sites within the project area that would be directly and indirectly impacted by the various action alternatives. This would require a more thorough consideration of impacts to sites outside of areas of direct surface disturbance, but within the range of dust accumulation, increased erosion and vibration, and that are more susceptible to vandalism and looting. | See response to comment #1238. Indirect impacts to sites is adequately addressed in Section 4.12. |
| 1036      | Cultural        | The BLM should embrace the spirit and intent of the NHPA by seeking out all willing consulting parties to participate in the resolution of adverse effects arising from full field development, and that future collaboration will reflect a willingness on the part of the BLM to engage alternative viewpoints of all interested parties.  | See responses to comments #8 and #10.   |
| 1037      | Cultural        | The BLM should more proactively communicate with the public on its efforts to resolve adverse effects to cultural resources, and that it provide additional opportunities to the public to express their views on efforts to resolve adverse effects. This could and should include a transparent process of regular public meetings whereby consulting parties could explain efforts to reach agreement and the Federal agency could account for its actions under NHPA.  | See responses to comments #8 and #10.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                                  |
|-----------|-----------------|---|---|
| 1038      | Cultural        | The EIS should more accurately reflect that dust accumulation is a direct impact to cultural resources, primarily rock art sites and historic signatures, and that these impacts will be thoroughly mitigated through Section 106 compliance.   | See response to comment #1238.                |
| 1039      | Cultural        | Dust abatement studies recommended by Silver, including the corrosive nature of magnesium chloride and related technologies, should be required and completed prior to implementing any dust abatement measures with materials other than water. Regardless of what alternative is chosen, the DEIS should clearly require dust abatement measures and that operators will be held accountable for compliance with these measures.  | See responses to comments #3, #651, and #971. |
| 1040      | Cultural        | Baseline site condition assessments should be conducted to identify and evaluate those sites impacted by dust accumulation, and to determine the spatial extent of the dust problem.  | See responses to comments #3 and #35.         |
| 1041      | Cultural        | The DEIS should articulate a requirement that periodic and consistent audits of site conditions will be conducted at those localities where National Register eligible cultural resources are vulnerable to dust accumulation and monitor site degradation over the life of the project.  | See responses to comments #3 and #35.         |
| 1042      | Cultural        | Access route closures to all but administrative purposes should be accompanied by BLM public outreach, including appropriate signage that would ameliorate conflicts between the public and operators.  | See response to comment #846.                 |
| 1043      | Cultural        | Given the isolated nature of the broad geographic areas that would be closed to public access and the consequent opportunities for oil and gas workers to engage in activities that denigrate or diminish the integrity of archaeological sites here, independent audits of site conditions by qualified archaeologists should be periodically implemented to assess any human-caused changes to site conditions. Such audits would deter inappropriate and illegal behavior, and could therefore be considered within the context of “minimizing” adverse effects, as defined in 36 CFR 800. | See responses to comments #3 and #35.         |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
|-----------|-----------------|---|---|
| 1044      | Cultural        | Full field development should include stipulations of no surface occupancy of all areas of Desolation Canyon that are visible from the river corridor, and where visual effects will adversely impact the historic integrity of Desolation Canyon and/or the recreational experience of visitors seeking to enjoy the historical context of the Powell expeditions in 1869 and 1871, regardless of distance from the center of the Green River.               | See response to comment #848.   |
| 1045      | Cultural        | Full field development should include complete mitigation of all auditory impacts that may intrude on the NHL, and that mitigation be implemented at all phases of development from construction to operations and reclamation. Mitigation should be effective enough that auditory impacts are indiscernible along the Green River and at the river camps at all times of day.   | See response to comment #848.   |
| 1046      | Cultural        | Given the industry alternative and Agency Preferred Alternative call for 43 to 20 wells in the spatially-restricted Jack Canyon area, it must be acknowledged that both alternatives will have significant impacts to the roadless qualities that have protected many, if not most, of the archaeological sites in the drainage. Therefore, all access routes into Jack Canyon should be gated and access limited to development and administrative purposes. | Gating all new roads that provide access into both Jack and Desolation Canyon WSAs is considered within the range of alternatives (Alternatives C and E). |
| 1047      | Cultural        | A complete assessment all previously recorded sites and any additional sites identified through additional Section 106 compliance surveys should be initiated to establish a thorough baseline database of site conditions evident at the time Jack Canyon was restricted to industry traffic.  | See response to comment #851.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                             |
|-----------|-----------------|---|--|
| 1048      | Cultural        | Given the isolated nature of Jack Canyon and the consequent opportunities for oil and gas workers to engage in activities that denigrate or diminish the integrity of archaeological sites here, independent audits of site conditions by qualified archaeologists should be periodically implemented to assess any human-caused changes to site conditions. Such audits would deter inappropriate and illegal behavior, and could therefore be considered within the context of “minimizing” adverse effects, as defined in 36 CFR 800.                          | See responses to comments #35 and #847.  |
| 1049      | Cultural        | Jack Canyon would be an appropriate and discrete environmental universe to initiate broader mitigation measures, including Class II stratified random sample surveys and/or Class III block surveys. These surveys could contribute important new insights into the relationship between seasonal water sources and human land-use patterns on the WTP. These insights could assist and augment BLM management of cultural resources elsewhere on the plateau by identifying those environmental niches where significant cultural resources are likely to occur. | See response to comment #1228.           |
| 1050      | Consultation    | Consulting status should be offered to special interest groups such as the Nine Mile Coalition, UPAC, URARA, and other research oriented groups involved in the area. Only by including these groups can the correct forms of mitigation and research possibilities be exhausted.   | See responses to comments #3 and #8.     |
| 1051      | Cultural        | The DEIS does not provide the amount of data needed for informed decision making. There are large voids of information regarding cultural resource data and analysis, which are needed in order to comply with NEPA and NHPA.   | See response to comment #328.            |
| 1052      | Cultural        | The excessive amounts of dust raised by industrial development and drilling have long been a problem in the canyon. This problem would be greatly exacerbated by a development as large as the BBC project. Dust raised from this drilling would cover, and in some places, permanently disfigure the surrounding rock art.   | See responses to comments #651 and #971. |

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| Comment # | Topic/ Resource                 | Public Comment   | BLM Response   |
|-----------|---------------------------------|--|--|
| 1053      | Cultural                        | The magnesium chloride that is used for dust abatement will cause chemical erosion of the surrounding rock and further damage cultural resources in Nine Mile Canyon.  | The comment does not provide the BLM with any literature to support these claims. There is no substantive or scientifically sound evidence at present that magnesium chloride used for dust abatement in Nine Mile Canyon has or will become a vector of deterioration of the Canyon's rock art. However, the BLM is aware of the potential damage that this material may cause and is therefore requiring BBC and other operators to use alternative dust suppressants in Nine Mile Canyon and its side canyons under all alternatives. |
| 1054      | Wildlife                        | Year-round drilling will upset wildlife migration, habitat, and the ability for the land to repair itself. Animals, such as the endangered sage-grouse, would have irreparable habitat loss, which would further threaten their continuance.   | See response to comment #217 for a description of the range of alternatives. Potential direct, indirect, and cumulative effects of Alternatives A, B, C, and E (which include year-round drilling) on wildlife species and their habitats are disclosed under their respective impact analyses in Sections 4.9, 4.10, 5.9, and 5.10 of the EIS.  |
| 1055      | Alternatives                    | Accessing the project area via an alternative route is technically and economically feasible.  | See response to comment #34.   |
| 1056      | Alternatives                    | The BLM should reconsider re-routing industrial traffic away from sensitive areas in Nine Mile Canyon  | See response to comment #34.   |
| 1057      | Alternatives                    | BLM must reconsider an alternative that re-routes truck traffic around Nine Mile Canyon.   | See response to comment #34.   |
| 1058      | Alternatives                    | Paving Nine Mile Canyon should be considered as a viable alternative to reduce the impacts truck traffic is having on rock art.  | See response to comment #1248.   |
| 1059      | Alternatives/ Health and Safety | Industrial traffic in Nine Mile Canyon poses risks to visitor safety. The BLM should consider alternative routes to the WTP.   | See response to comment #34.   |
| 1060      | Dust Study                      | The dust study (Constance Silver Report) ended up in controversy since only the preliminary report was included in Appendix G. We obtained a copy of the final lab report and it is clear that magnesium chloride used on the road is also on the rock surfaces, and a water sample shows that the magnesium chloride went into Nine Mile Creek. | See response to comment #53.   |
| 1061      | Dust Study                      | A dust study needs to be done that includes particle chemical identification, size, and concentration, but the preliminary study shows that a potential dust hazard exists.  | See response to comment #53, #1240, and #1243.   |

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| Comment # | Topic/ Resource      | Public Comment  | BLM Response   |
|-----------|----------------------|---|--|
| 1062      | Cultural/ Dust Study | The Nine Mile Coalition has obtained data that contradicts the dust information in the DEIS. The Coalition paid for a portable laser particle detector (Airtest Personal Laser Particulate Monitor) to do a preliminary study of dust concentrations from traffic in the Canyon. The particle counter reads out in particles per cu W100, but the readings can be converted to compare to the EPA limits. In Price, the counter shows 10,000 particles/cu ft. In Nine Mile Canyon with no vehicles passing by, the counter shows 300,000 particles/cu ft. With 80,000 lb liquid carbon dioxide trucks passing by, the counter reads 3,000,000 particles/cu ft (this is 100 percent opacity, i.e., you can't see anything). The EPA 24-hour fine particle standard is 35µg. The 3 million particles/cu ft from the liquid carbon dioxide truck are equivalent to 1500 µg/m <sup>3</sup> . [data and photos attached to comment letter] | The data obtained by NMC was not provided to the BLM for review or inclusion in the EIS; therefore, the adequacy and accuracy of this information is unknown. The Dust Study, which was peer reviewed, was conducted by qualified professionals. While there is a discrepancy between the particle counts from data collected by NMC and that which was collected during field sampling for the Dust Study, the overall conclusion is still the same. Namely, that degraded sections of road in Nine Mile Canyon are generating large amounts of dust as industrial traffic passes, and that plumes of fine dust settle on adjacent rock art. The BLM has included measures within the FEIS to minimize these impacts. |
| 1064      | Traffic              | Carbon County did a 24-hour count of traffic in the Canyon when two drill rigs were operating and found that there were 340 vehicles mostly within 12 hours (see attached study). The DEIS says there will be 575 vehicles at peak development (9 drill rigs). We have done other counts and on three days in June, July, and August of 2007, we counted 80 to 100 industrial vehicles over a period of 4 to 5 hours. I estimate that the peak drilling traffic will be over 1200 vehicles in 12 hours for full field development. At times, there will probably be two trucks a minute passing a point in the Canyon, and the continuous concentration of particulates could be well beyond the EPA standard.  | See response to comment #880.  |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
|-----------|-----------------|--|--|
| 1065      | Air Quality     | The BLM has never accounted for the impact of the Dry Canyon Compressor Station in any NEPA document, and does not model in the DEIS the pollution from the Station, which sits in a deep canyon that has strong inversions which hold the dust, the diesel and the compressor effluents close to the ground. The synergistic effect of this type of situation is discussed in a scientific publication by George D. Liekauf entitled "Hazardous Air Pollutants and Asthma" (Environmental Health Perspectives, Vol 1 10 (Supplement 4), August 2002. He says that complex mixtures of hazardous air pollution may exacerbate asthma. The chemical effect of the air pollutants on the rock art is not known since the Constance Silver study was so inadequate, but you can already see the rock art being obscured by the dust deposited on the rock surfaces. Any rock art not exposed to the rain will eventually disappear over the 30 years of this project (see before and after photos). | See response to comment #882.  |
| 1066      | Recreation      | The dust will cover the rock art over the years, the tourists will abandon the Canyon because of the health hazards (respiratory and accident hazards) and the lost solitude.  | The impacts of dust on recreational use and loss of solitude are addressed under "Impacts to Recreational Opportunities" in Section 4.11. Health hazards are discussed in Section 4.15.  |
| 1067      | NEPA/Cultural   | DEIS (Section 5.12, pg 5-36) states, "However, it is anticipated that such measures would not prevent all cumulative impacts from occurring. Cumulative impacts are most likely to occur at undocumented archaeological sites and to sensitive Native American sites, such as TCPs, because of further encroachment on viewshed and natural setting." This is a violation of NEPA and numerous other Federal laws protecting antiquities and Indian sacred places.   | NEPA is a procedural statute that does not impose limits on agencies actions. Under NEPA, agencies may inform the public and decision makers of compliance with other relevant laws that mandate specific levels of environmental protection. A programmatic agreement has been completed to identify mitigation measures for potential adverse impacts in compliance with the NHPA. |
| 1068      | Cultural        | To no avail, the Hopi have commented numerous times that the traffic and dust threaten their cultural sites in the Canyon.   | See responses to comments #8, #28, and #702.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 1069      | Alternatives    | All that is needed to save the Canyon is approximately 5 miles of bypass road that would take all the traffic out of the main Canyon and Cottonwood Canyon. In the DEIS, the BLM has already eliminated any bypass road alternatives without any proof that they were not feasible. The engineering studies in the DEIS are only for existing access roads. Unsubstantiated statements have been made that more damage will be done to cultural resources by the bypass roads than if the industrial traffic remains in the Canyon. It is hard to believe that areas away from Nine Mile Canyon would have a higher density of rock art than the main Canyon. | See response to comment #34.   |
| 1070      | Alternatives    | North of Nine Mile Canyon there is already a gas drilling road, which goes to the lip of Trail Canyon. Trail Canyon used to be the access to Nine Mile Canyon and is still shown on BLM maps as having a BLM ROW. Going from Trail Canyon up Harmon Canyon puts you on the West Tavaputs, and only a road into and out of Dry Canyon would give access to the Cottonwood Ridge and the Peters Point Area. An engineering study needs to be done on the potential bypass roads. This is a violation of NEPA where no "reasonable alternative" can be eliminated without supporting justification.  | See response to comment #34.   |
| 1071      | General         | Experience over the last four years has shown that the BLM has neither the manpower nor the will to effectively oversee a large project such as the West Tavaputs. The DEIS proposes that the BLM and BBC choose a monitoring company, which will report only to BLM and BBC. This is unacceptable and an oversight committee should be set up, which would be made up of the various stakeholders, i.e., property owners, Native Americans, the Nine Mile Coalition, URARA, Carbon County, etc. This committee would function like the one set up in Pinedale, WY.   | See responses to comments #1005 and #1272.<br><br>As a point of clarification, the third-party monitor would report directly to the BLM, and not to BBC. In addition, through the Programmatic Agreement, the stakeholders that have expressed concerns about the projects potential impacts on cultural resources will be provided opportunities to be involved in the developing mitigation and monitoring the effectiveness of those mitigation measures. |
| 1072      | Alternatives    | The BLM, after consideration of alternative access routes, dismissed the Trail Canyon route from further analysis because construction of the route would likely impact culture resources. This is an ineffective reason to dismiss the alternative.  | See response to comment #34.   |



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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
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| 1073      | Alternatives    | The alternate access route from Gate Canyon to Trail Canyon would be a possibility and should be fully analyzed.  | See response to comment #34.  |
| 1074      | Alternatives    | A new alternate route should be found for a bypass road to keep industrial traffic away from the canyon and analysis should be included in a new DEIS.  | See response to comment #34.  |
| 1075      | Alternatives    | BLM should rethink its policy over allowing winter drilling.  | See response to comment #174.   |
| 1076      | General         | The EIS should include putting a full-time archaeologist and a visitor contact person in Nine Mile Canyon. A full-time law enforcer is also needed. Complaints have been made about the dangerous situations of fast moving industrial trucks almost running people off the road and cracked windshields caused by trucks not slowing down. | See responses to comments #945 and #1272.   |
| 1077      | Dust Study      | The use of magnesium chloride should be eliminated from being put on the road. It may contaminate Nine Mile Creek.  | Both the proponent and Carbon County have agreed to discontinue the use of magnesium chloride on Nine Mile Canyon Road (see response to comment #651). In addition, potential impacts of magnesium chloride on water resources, including Nine Mile Creek, were discussed in Section 4.5.1.1 of the DEIS.   |
| 1078      | Dust Study      | Analysis of the water contaminates in Nine Mile Creek should be included. Dust study analysis needs to be done by experts and should be included in a new DEIS.   | See response to comment #1077 and #1316. A copy of the final Dust Study has been included in the FEIS (see Appendix G). The BLM has also included a long-term water quality monitoring program in the FEIS, which will allow the BLM to monitor changes to water quality over time.   |
| 1079      | Alternatives    | The alternatives in the DEIS are not acceptable. The only thing to be done now is to withdraw this draft and rethink all of the possibilities that have not been put into the document.   | See responses to comments #217 and #1316.   |
| 1080      | Cultural        | I urge the BLM to make the canyon's nomination to the NRHP a priority, and to ensure to the American people, for whom they manage this special place, that the lands will be managed for the benefit of all who value the multiple opportunities and uses the canyon and its surrounding region provide.                                    | See response to comment #1310.  |
| 1081      | Water Resources | In my public scoping letter dated November 2005, I was emphatic regarding the need for a comprehensive inventory of seeps, springs and wells within Nine Mile Canyon, including baseline water quality data. The DEIS is nearly silent on the canyon's hydrology. Incorporates Great Basin Earth Science letter by reference.               | As discussed in Section 3.5, a survey of springs and seeps was conducted during August 2008 to provide baseline data concerning flow volumes and the general water quality of springs within areas where development is proposed. The survey consists of five components: GIS mapping of known springs and seeps; review of aerial photography to select locations likely to contain additional springs and seeps; a reconnaissance spring survey in the areas identified as likely to contain springs and seeps; collection of flow and field parameter data from selected springs and seeps; and data review and compilation. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 1082      | Water Resources | As a property owner in Nine Mile Canyon, I depend on clean and chemical-free water sources for culinary and agricultural requirements. The lack of any baseline ground and surface water quality data, including a comprehensive inventory of seeps and springs within the canyon, near and downstream of magnesium-chloride treated sections of the industrial commute routes, are omissions that cannot be accepted in the DEIS. My property lies immediately downstream of the treated sections of the road, where concentrations of magnesium chloride-tainted surface water and groundwater are bound to be highest. My irrigation water is tainted with magnesium chloride and industry-related emissions that are washed into the stream when frequent summer monsoons wash across the treated roadways. | See responses to comments #773, #792, #796, #810, #1081, and #1108.  |
| 1083      | Water Resources | The DEIS does not address the possibility of groundwater contamination from drilling operations. However, there are numerous examples of drilling operations affecting ground water quality by introducing arsenic, CO <sub>2</sub> , and other toxic chemicals and elements. The BLM has not made the preservation of the region's water resources a priority in the DEIS. It is completely irresponsible to provide the public with a DEIS that does not contain a comprehensive inventory of seeps, springs, wells and surface water, including baseline water quality data.   | See responses to comments #773, #792, #796, #810, #1081, and #1108.  |
| 1084      | Water Resources | Without baseline water data, the ability to measure the effectiveness of mitigation plans and efforts will be impossible.   | Under Alternatives C and E, BBC and other operators would be required to conduct long-term monitoring of groundwater, seeps and springs, and surface water within the WTP Project Area. This monitoring program would allow the BLM to measure the effectiveness of mitigation efforts. Additional information can be found within Appendix Q.   |
| 1085      | Water Resources | The incomplete DEIS should be withdrawn until a necessary and well-researched hydrology inventory, including baseline water quality data can be provided. The inventory should cover the entire project area including all drainages near and downstream of all industrial commute routes, well pads, compressor stations, etc. The results should then be presented to the public for comment.   | See response to comment #773 and #1316.<br><br>The DEIS discloses all potential impacts of the project on water quality using all existing information. Additional information collected by the BLM since 2005, as well as additional information from Utah STORET stations, has been added to the FEIS. In addition, under Alternatives C and E, BLM has incorporated a long-term water quality monitoring program, which would allow the BLM to detect changes to water quality over the life of the project (see Appendix Q). |

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| Comment # | Topic/ Resource         | Public Comment   | BLM Response  |
|-----------|-------------------------|--|---|
| 1086      | Dust Study              | Incorporates Utah Rock Art Research Association, the Colorado Plateau Archaeological Alliance, and Nine Mile Canyon Coalition comments on the Dust Study by reference.   | See responses to comments submitted by these various organizations. |
| 1087      | Dust Study              | I urge the BLM to restore the public's trust in its management policies by withdrawing the DEIS as it is written, and that it be modified to include an accurate and responsible representation of the effects of airborne dust, industry-related emissions, and airborne dust-suppressant chemical agents on this world-famous cultural region, and specifically, the rock art. | See responses to comments #3, #1240, #1243, #1053, and #1316.       |
| 1088      | NEPA/Mitigation         | A modified DEIS should also include a comprehensive mitigation plan, developed through NHPA Section 106 compliance, including participation of consulting parties that have previously been denied consulting party status including, but not limited to, the Nine Mile Canyon Coalition (9MCC), the National Trust for Historic Preservation (the Trust), CPAA, and URARA.      | See responses to comments #1, #3, and #35.                          |
| 1089      | Wilderness              | Full field development should include a NSO stipulation within WSAs and within auditory and visual distance from the Green River, in order to preserve wilderness qualities, historic integrity, and experience of visitors seeking to enjoy the Desolation Canyon NHL.  | See response to comment #848.                                       |
| 1090      | Alternatives/Wilderness | If resources cannot be extracted from under the WSAs from well pads located outside of the WSAs, the BLM should buy back the mineral leases from the leaseholders and retire them.   | See response to comment #217.                                       |

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| Comment # | Topic/ Resource    | Public Comment   | BLM Response   |
|-----------|--------------------|--|--|
| 1091      | Cultural Resources | The Archaeological Resources Protection Act (ARPA) established civil and criminal penalties for the unauthorized excavation, removal, or damage to cultural sites and rock art. I urge the BLM to restore the public's trust by improving its credibility and correcting its current mode of operation through making the preservation and protection of cultural resources in the region a priority in the DEIS. Otherwise, the BLM, the energy industry, and State and local governments should be held accountable and prosecuted for allowing the destruction of cultural resources and the environment in the region. | The BLM is committed to follow the Uniform Regulations for Protection of Archaeological Resources (43 CFR 7; 36 CFR 296; 32 CFR 229; 18 CFR 1312), which provides guidance across Federal agencies for administering the provisions of ARPA, including requirements for Federal agencies to report violations. |
| 1092      | Alternatives       | The arguments provided against using bypass routes are extremely weak and can basically be summarized in one or two words - inconvenience and cost- neither of which is a valid excuse under NEPA, the NHPA, or ARPA for destroying priceless national archaeological and historic treasures.  | See response to comment #34.   |
| 1093      | Alternatives       | The DEIS should be withdrawn and tabled until a comprehensive and exhaustive evaluation of all possible bypass routes by licensed and competent highway engineers, and Section 106 consultation with concerned organizations previously suggested, can be provided in a modified DEIS. The modified DEIS should then be released for further public comment.   | See responses to comments #34, #8, and #1316.  |
| 1094      | General            | The lack of baseline quality data and inventories of cultural, water and wildlife resources in the DEIS is irresponsible and renders the document incomplete and useless. Therefore, the document must be withdrawn from consideration until major modifications are made to include the necessary research, data, and mitigation plans to make it a complete, substantive, and morally responsible DEIS.  | See responses to comments #328, #1228, #913, and #1316.  |
| 1095      | Alternatives       | The preferred alternative includes a mandate to reclaim all impacts at the conclusion of the project. There are already many roads, pipelines, and similar developments of historic value. I don't want to see that history erased due to "mandates" from this decision.   | Final reclamation would be required for all well pads, roads, pipelines, and ancillary facilities that are proposed within this EIS. There is no mandate to reclaim disturbances associated with past actions.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                                     |
|-----------|-----------------|--|--|
| 1096      | Alternatives    | The BLM should adopt Alternative E and move this project forward in a timely manner that both minimizes any potential negative impacts to the local environment and maximizes the benefits to the local economy. | No alternative will be selected until the ROD.   |
| 1097      | Alternatives    | BLM should perform a detailed evaluation of alternative routes that trucks can use to access the project area instead of the existing dirt roads in Nine Mile Canyon and its narrow side canyons.                | See response to comment #34.                     |
| 1098      | Cultural        | Well drilling should require an impact statement showing they will not damage the sites or petroglyphs.  | See response to comments #1, #8, #217, and #496. |
| 1099      | Alternatives    | Vehicular traffic should be re-routed to ensure the petroglyphs and prehistoric sites are not damaged by dust, chemicals used to suppress dust, or by any commercial actions.                                    | See response to comment #34.                     |
| 1100      | Alternatives    | BLM should perform a detailed evaluation of alternative routes that trucks could use to access the project area instead of using the existing dirt roads in Nine Mile Canyon and its narrow side canyons.        | See response to comment #34.                     |
| 1101      | Alternatives    | BLM should perform a detailed evaluation of alternative routes for trucks and re-evaluate the development project.   | See response to comment #34.                     |
| 1102      | Alternatives    | BLM should reroute industrial traffic to preserve the ancient rock art.  | See response to comment #34.                     |
| 1103      | Alternatives    | BLM should require the gas and oil trucks to find alternative routes into Nine Mile Canyon.  | See response to comment #34.                     |
| 1104      | Alternatives    | BLM should restrict all gas/oil companies from accessing drilling sites directly through Nine Mile Canyon.   | See response to comment #34.                     |
| 1105      | Cultural        | BLM should not allow drilling for oil or gas near any Native American historical sites, or gaining access to drilling locations on/near these historic sites.  | See response to comments #1, #8, #217, and #496. |

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| 1106      | Alternatives     | Alternative routes were not analyzed in the DEIS based upon conclusory statements or statements of opinion not supported by data or analysis (i.e., "new roads proposed in side canyons would likely impact cultural resources," "the road would be difficult to safely maintain during the winter-time," and "opening the road year-round could potentially impact sage-grouse and big game species.").  | See response to comment #34.  |
| 1107      | Dust Study       | The BLM has ignored existing studies which illuminate the environmental degradation which has previously occurred, and will be exacerbated by increased industrialization in Nine Mile Canyon. Although the final Dust Report prepared by Constance Silver was completed in the Fall of 2007, the BLM chose not to make the final report available to the public in the DEIS.   | See response to comment #53. The Final Dust Study, included in the FEIS, was provided to the BLM by Constance Silver in June of 2008.   |
| 1108      | Water            | The DEIS contains no analysis specific to the WTP Project Area from the use of magnesium chloride as a dust suppressant in Nine Mile Canyon. The DEIS relies on the results of a study on the use of magnesium chloride as a deicer in Colorado. This is inadequate for assessing the impacts on water resources in Nine Mile Canyon. Specifically, the DEIS contains no studies on the effects of magnesium chloride on surface water and groundwater in Nine Mile Canyon. | The deicer study is the best study available concerning the potential water quality impacts from use of magnesium chloride on roadways. The DEIS acknowledges that the use of magnesium chloride as a dust suppressant would likely have greater environmental impacts than use as a deicer on page 4-69. In addition, it should be noted that both the proponent and Carbon County have agreed to discontinue use of magnesium chloride in Nine Mile Canyon. |
| 1109      | Water            | The DEIS is notable for the lack of baseline data and missing analyses of the impacts of the proposed project on Nine Mile Creek. The DEIS has no baseline data on surface water flows and water quality for Nine Mile Creek. Fundamental surveys, assessments, data collection, and documentation of key resources have not been performed. Without these required descriptions of the affected environment, there can be no meaningful analysis of impacts.               | See responses to comments #773, #778, #789, #792, #793, and #796.   |
| 1110      | NEPA/ Dust Study | The BLM should prepare a supplement to the DEIS to fully consider, analyze, and disclose Constance Silver's final Dust Report. A separate public comment period must be provided for that supplemental study.   | See responses to comments #53 and #1316.  |

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|-----------|-----------------|--|--|
| 1111      | NEPA            | The Coalition respectfully requests a 60-day extension of the comment period for the WTP Natural Gas Full Field Development Project to allow the Coalition to perform the road engineering studies and water quality surveys noted above.  | See response to comment #1570.   |
| 1112      | Socioeconomics  | The WTP is a prolific natural gas resource that is nationally significant. BBC seeks to develop this resource in a responsible manner to the benefit of the citizens of the local communities, counties, and State of Utah. BBC estimates that the energy sources under BBC's leases, which upon production would result, in total are an energy resource that would heat 400,000 homes in the State of Utah for 20 years. This is equivalent to 150 percent of Utah's total current residential consumption. This would constitute 25 percent of Utah's actual production—approximately 250 million standard cubic feet per day (MMcf/day). | BBC's estimated natural gas production is clearly disclosed in multiple places within the EIS. For example, see Sections 4.2 and 4.13. |
| 1113      | Socioeconomics  | A complete analysis of the area's economy must consider non-labor income, and a thorough evaluation of land management alternatives must consider the impacts of each alternative on non-labor income.   | See response to comment #833.  |
| 1114      | Socioeconomics  | A complete analysis of an area's economy must take into account the growth in income and employment in the service and professional sectors, and consider the impacts of each alternative on those sectors.  | See responses to comments #825 and #832.   |
| 1115      | Socioeconomics  | A complete analysis of an area's economy must present data and analysis that fully account for the important role that tourism, recreation, hunting, and fishing play in ensuring a sustainable and diversified economy for rural western communities.   | See responses to comments #825 and #832.   |
| 1116      | Socioeconomics  | A complete analysis of an area's economy must take into account the growing role of entrepreneurial businesses and consider the impacts of each alternative on those businesses attracted by the environmental amenities provided by public lands in those communities.  | See response to comment #833.  |
| 1117      | Socioeconomics  | The EIS should fully address the economic importance to local communities of protecting public wildlands from resource extraction.   | See response to comment #126.  |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                                    |
|-----------|-----------------|--|---|
| 1118      | Socioeconomics  | The analysis of regional economic impacts must include an analysis of all sources of income, including non-labor income. An accounting of all sources of income is necessary to understand the important role that retirement and investment income, as well as other sources of non-labor income, such as interest payments, rents, and profits -play in the regional economy. An economic impact analysis that excludes non-labor income is inadequate and misleading.   | See response to comment #833.                   |
| 1119      | Socioeconomics  | For all counties in the planning area, please show the role of non-labor income in the area's economy. Show the percentage of current total personal income that is non-labor income (excluding income support). Analyze and discuss the role that retirement and investment income currently plays in the area's economy, including the spillover effects of non-labor income on businesses in the area. Analyze and discuss the role that amenities, including recreation opportunities and environmental quality, currently play in attracting and retaining non labor income to the area. Analyze and discuss the potential impacts that public land management alternatives will have on the level and trend of investment and retirement income in the area.                           | See response to comment #833.                   |
| 1120      | Socioeconomics  | For all counties in the planning area, show the role of recreation, hunting, and fishing in the area's economy. Collect data on participation in all recreation activities (hunting, fishing, hiking, camping, backpacking, biking, skiing, wildlife watching, boating, ORV use, etc.). Collect data on expenditures by recreation visitors in the region. Analyze the economic impact of hunters' and anglers' expenditures on area businesses and local economies. Analyze the economic impact of other recreationists' expenditures on area businesses and local economies. Show the impact of lodging taxes, sales taxes, and property taxes in the local economy. Analyze and discuss the impact of public land management alternatives on recreation, hunting, and fishing businesses. | See responses to comments #119, #825, and #832. |



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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 1121      | Socioeconomics  | For all counties in the planning area, please show the role of various industries in the area's economy. Show the current distribution of employment and income by industry (for each industry, show employment as a percentage of total jobs and income as a percentage of total personal income). Discuss the relative importance of each industry. Analyze and discuss the impacts that public land management alternatives will have on non-extractive industries if extractive activities are accelerated on public lands in the area. Show a complete analysis of the segments of service and professional employment and income for the area. Analyze and discuss the potential impacts of land management alternatives on these sectors of the economy. Show trends in employment and income by industry, including a detailed examination of the service and professional sectors. Discuss the level of diversity in the region's economy. Discuss trends in income and employment that have led to the current mix of industries. Analyze and discuss the potential impacts of public lands management alternatives on the overall makeup of the economy of the area. Show trends in non-farm proprietor's income as a percentage of total personal income for the area. Collect data on the various sectors that make up non-farm proprietors. Analyze the sectors where entrepreneurship is growing. Analyze and discuss the factors that have attracted new businesses to the area. Analyze and discuss the potential impacts that public land management alternatives will have on these sectors and the ability of proprietors to start and grow businesses. | Section 3.13 of the EIS discusses the role of various industries in terms of employment and wage levels. Business formation by proprietors is implicit in the aggregate employment projections presented in Chapter 4.   |
| 1122      | Socioeconomics  | The reasonably foreseeable development scenario should be based on economically recoverable amounts of oil and gas, not technically recoverable oil and gas.  | <p>The operators must fulfill their obligations and responsibilities under Federal leases to explore, develop, and produce commercial quantities of hydrocarbons. BBC and other operators' purpose and need for the WTP project is to exercise their valid lease rights and extract the leased natural gas from the subsurface, thereby increasing the available supply of domestic natural gas by a daily delivery of approximately 250 MMscf/day.</p> <p>Economically recoverable quantities of oil and gas may vary of the life of the project and are dependent upon a number of variables including, but not limited to, product price, which is largely out of individual operator's control, and costs of services, which in many cases more than doubled over the last two years. As such, what is economically recoverable quantities of oil and gas may be less than the estimates provided above.</p> |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
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| 1123      | Socioeconomics  | If the agency uses IMPLAN, it must account-for the fact that most drilling is completed by non-local crews. If the agency uses IMPLAN, the analysis must account for increasing labor productivity and hence declining jobs per well drilled. We insist that the agency fully discuss the assumptions, the short-comings, and the risk and uncertainty due to the poor track record of the IMPLAN model in planning efforts. We also request that all data and multipliers used to project local impacts be made public. | The EIS accounts for non-local employers. Productivity increases were not modeled in order to provide a conservative (maximum) impact assessment to communities, facilities, services, and housing. For discussion of the impact model, see response to comment #832. Data and multipliers used to project local impacts will be made available to the public as part of the administrative record for this project.   |
| 1124      | Socioeconomics  | The agency should complete a trend analysis of regional jobs and income to provide a better and more complete understanding of their economic past and their economic future. We formally request and recommend that the agency analyze economic trends using the Economic Profile System (EPS) model developed by the Sonoran Institute in cooperation with the BLM.  | A trend analysis is included in Table 3.13-5 (total employment from 1970-2000). The trend from 2000-2004/2005 is included in Table 3.13-6 - 3.13-8. These tables were constructed using data from the same sources as provided by the Sonoran Institute Economic Profile System.   |
| 1125      | Socioeconomics  | We request that the agency make realistic assessments of the likely production curves along with the expected rate of development and production for the type of resources to be produced, and that all estimates of local revenues be made on an annual basis which reflects the expected annual production.  | The analysis was based on production curves and expected rate of development and production provided by the proponent. Revenues were estimated on an annual basis, but were reported as annual averages for the life of the project. As discussed in Section, 4.13.2.4, across all jurisdictions, Alternative A would generally stimulate demand for services and impose costs on local and county governments to deliver these services before generating the offsetting revenues.  |
| 1126      | Socioeconomics  | We request that the agency determine all applicable Federal, State and local tax laws (including exceptions and reductions) and that these laws and regulations be used to make realistic and accurate estimates of net tax revenues from oil and gas production. As discussed above, revenue estimates must be made based on economically recoverable resources rather than technically recoverable, and must include the environmental and community costs from drilling and production.                               | Revenues were modeled in a manner that accounts for all applicable Federal, State and local tax laws with the exception of property tax, which was calculated as discussed in Section 4.13.2.4, which reads: The State uses dedicated appraisal software to determine taxable valuation based on projected value of production and other statutory factors. For this analysis, instead of simulating the State method, BBC estimated an "effective tax yield" of 1.4 percent of the value of production, reflecting their experience with existing operations in the WTP Project Area. |
| 1127      | Socioeconomics  | We request that the agency include both market and non-market costs and benefits in order to account for all the impacts of potential development.   | Non market goods are discussed in Section 3.13.5.2. Table 3.13-15 presents estimates of the average non-market use value of recreation on public land. The same section discusses the passive use benefits of wilderness.  |
| 1128      | Socioeconomics  | We formally request that the agency estimate the costs associated with oil and gas development to private landowners as part of the NEPA process.  | The costs of development on private lands are qualitatively discussed in Section 4.6.1.2 of the EIS.   |

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| 1129      | Socioeconomics  | When estimating the benefits of an oil and gas development project, the agency must show these benefits as net rather than gross. The increased public service and infrastructure costs associated with expedited oil and gas development must be fully accounted for as part of the NEPA process for the current push to develop oil and gas in the West. | The socioeconomic analysis contains both public expenditures and public revenues (see Section 4.13).  |
| 1130      | Socioeconomics  | The impacts on local economic diversity, the socioeconomic risks to communities from cycles of boom and bust, as well as the economic instability associated with oil and gas development, must be analyzed and addressed as part of the NEPA process.   | The impacts of boom and bust economies are discussed in Section 4.13.2.5.   |
| 1131      | Socioeconomics  | When proposing oil and gas development, the agency must fully examine and account for the risks and costs associated with water depletion, loss of native fisheries and fisheries restoration, the additional costs of noxious weed mitigation, and the costs associated with the building and potential failure of artificial water retention structures. | <p>A full evaluation of the economic costs of potential environmental impacts would require a risk assessment and a complex analysis involving numerous linked indirect effects resulting in a task that is beyond the scope of this document. Given the number of variables and assumptions which would have to be made, the results of any such assessment would be too speculative.</p> <p>Compliance with regulatory requirements, as well as implementation of proposed mitigation measures, would substantially reduce potential environmental impacts. Those costs would be internalized by the proponent.</p> |
| 1132      | Socioeconomics  | We formally request that all of the potential impacts on and risks to water quality from oil and gas be fully analyzed and that the costs of these impacts be included in the NEPA analysis for oil and gas development.   | See response to comment #1131.  |
| 1133      | Socioeconomics  | Oil and gas development creates a footprint that extends beyond the drilling pad and the costs associated with this extended zone of impacts must be accounted for in agency analyses.   | See response to comment #1131.  |
| 1134      | Socioeconomics  | We formally request that the agency provide an accurate estimate of the numbers of producing wells, dry holes, and injection wells. We request that the cumulative impacts of all wells and associated roads, pipelines, and other infrastructure be analyzed fully as part of the NEPA process.   | Cumulative impacts, including past, present, and reasonably foreseeable future actions are discussed in Section 5.13.   |
| 1135      | Socioeconomics  | We formally request that the agency require phased development of oil and gas resources on public lands, and that the costs associated with rapid versus phased development, be fully analyzed and compared as part of the NEPA process.   | The range of alternatives presented in the EIS considers phased development within the WTP Project Area. Under the various alternatives the life of the project could range from 27 to 46 years.  |

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| 1136      | Socioeconomics  | Wildlife habitat fragmentation results in both market and non-market costs. These costs must be analyzed as part of the NEPA process for oil and gas development.  | The WTP EIS contains a wildlife fragmentation analysis. The Proposed Action contains a voluntary operator-funded wildlife mitigation plan that would substantially reduce both market and non-market costs of wildlife fragmentation. Components of Alternatives C and E, as well as the Agency Wildlife Mitigation Plan, would also reduce both market and non-market costs of wildlife fragmentation.   |
| 1137      | Socioeconomics  | The environmental costs associated with construction, maintenance, and repair of pipelines, as well as the costs of the habitat fragmentation due to pipelines, must be examined as part of the NEPA process for and oil and gas development.  | <p>The environmental costs, in terms of resource damage or degradation, associated with construction, maintenance, and repair of pipelines are discussed within each resource section in the EIS. The financial cost of repairing such environmental costs would depend on the amount, timing, and location of proposed development and a number of other variables, such as the effectiveness of mitigation. Given the number of variables and assumption which would have to be made to estimate these costs, the results of any such assessment would be too speculative. In addition, financial costs would largely be internalized by the proponent.</p> <p>The construction of all infrastructure, with the exceptions of approximately 10-miles of cross-country pipelines (which are not illustrated on the EIS figures), were included in wildlife fragmentation analyses (see Appendix I). Also, see response to comment #1136.</p> |
| 1138      | Socioeconomics  | The costs associated with the ecological damage due to oil and gas roads must be included in the analysis of plan alternatives involving oil and gas drilling and projects. The agency must also include a detailed analysis of the costs associated with monitoring and enforcement of increased recreation use of expanded road mileage as part of the NEPA analysis. The costs for road maintenance must also be accounted for in the NEPA process. | <p>See response to comment #1131.</p> <p>The costs of road maintenance are addressed in the EIS in Section 4.14 and Appendix F. These costs would largely be internalized by the operators and/or paid for through the use of revenues collected from mineral operators.</p>  |
| 1139      | Socioeconomics  | Environmental mitigation costs must be estimated and included in NEPA analysis.  | <p>See response to comment #1131.</p> <p>Under all BLM alternatives, BBC and other operators would be required to fund a mitigation monitoring program (see Appendix D), which would offset monitoring costs normally born by the BLM. Because the alternatives contain various levels and types of mitigation, depending on the amount, timing, and location of proposed development, the associated cost to fund a mitigation monitoring plan would depend on the alternative selected in the ROD. Based on these uncertainties, the EIS does not evaluate the monetary costs of mitigation measures associated with each alternative. Costs to the BLM would remain relatively constant across all alternatives as all costs of mitigation would be internalized by the proponent.</p>   |

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| 1140      | Socioeconomics  | In order to fully comply with NEPA, the agency must include an analysis of the costs of implementing each alternative, which includes the costs of the mitigation plans contained within each alternative. These costs must then be compared to the expected budget level to assess the probability of mitigation measures being fully implemented. The agency should therefore, as part of the NEPA process, include a reasonable budget limitation and evaluate a set of management alternatives that are constrained by that budget level. The agency must require adequate funding from oil and gas operators (in the form of reclamation bond) to insure that the reclamation is complete and adequate.  | See responses to comments #1131 and #1139. The costs of mitigation under each alternative have not been compared to the expected budget level of the agency because the EIS states all costs of development, including mitigation, would be internalized by the proponent. For example, operators would fund the following mitigation measures and/or studies: cultural resource monitoring (see Appendix P), wildlife mitigation (see Appendices B and E), water quality monitoring (see Appendix Q), dust suppression (see Appendix R), and all other mitigation measures (see Appendix D). |
| 1141      | Socioeconomics  | The agency must assess the adequacy of funding and staffing to achieve the required environmental and safety enforcement for an oil and gas development. If inadequate funding and/or staff resources might prevent thorough enforcement and monitoring, this needs to be made clear, and the costs associated with the additional impacts must be analyzed as part of the NEPA process.  | See responses to comments #1131 and #1139.  |
| 1142      | Air Quality     | EPA Region 8 has reviewed the DEIS and has discussed our concerns with BLM. Based on these conversations, it is our understanding that EPA and BLM share the primary concern regarding the lack of adequate air quality information and the potential for air quality impacts, especially ozone. Based upon our discussions with BLM, it is our understanding that BLM agrees that it will conduct additional air quality modeling and assessment. EPA believes that the additional modeling and assessment will resolve our concern and allow for a satisfactory FEIS. Therefore the rating provided for this DEIS should not be construed as a disagreement between EPA and BLM regarding the path forward. | Additional ozone modeling has been included in the FEIS.  |

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| 1143      | Air Quality     | On March 12, 2008, and thus subsequent to the publication of this DEIS, the EPA changed the national ambient air quality standards (NAAQS) for ground-level ozone. EPA revised the 8-hour primary ozone standard, designed to protect public health, to a level of 0.075 parts per million (ppm). The previous standard, set in 1997, was 0.08 ppm (effectively 0.840 ppm).   | This background information has been added to the FEIS. Also see response to comment #1142. |
| 1144      | Air Quality     | Ozone impacts from the Proposed Action were estimated using the results of the impact analysis performed for the Pinedale Anticline DEIS from February 2007. The modeling was performed with the CALGRID photochemical modeling system in combination with one year of meteorological data. The DEIS indicates that since emissions resulting from the Proposed Action would be small compared to the projected county-wide emissions, the contribution of the Proposed Action would cause a very small portion of ozone increases. This is not necessarily accurate, however, since ozone formation is not directly proportional to the magnitude of precursor emissions of volatile organic compounds (VOCs) and nitrogen oxides (NO <sub>x</sub> ). In addition to the quantity of emissions, ozone production is spatially and temporally dependent on the location of the emissions because these precursor emissions are altered by sunlight over time to form ozone. Further, the West Tavaputs-related emissions were not included in the prior CALGRID modeling analysis. Thus, the proposed conclusion that the project would cause very small ozone increases is not technically defensible. | See response to comment #1142.  |
| 1145      | Air Quality     | In particular, we are concerned there could be exceedances of this new ozone standard, since the modeling that was completed indicates that the fourth highest ozone concentration would be 75-77 ppb, which exceeds the level of the new 8-hour average ozone NAAQS, even without inclusion of the West Tavaputs-related emissions.  | See response to comment #1142.  |

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| 1146      | Air Quality     | The closest monitor to this area at Vernal, Utah, showed ambient air with 68 ppb as the fourth highest ozone concentration during the summer of 2007. The EPA is concerned about this level of air quality given the need to also accommodate additional oil and gas, oil shale, and tar sands cumulative source developments that are likely to occur within the same airshed, while the area remains in attainment of the ozone NAAQS.   | See response to comment #1142.  |
| 1147      | Air Quality     | It should also be acknowledged that the BLM in Wyoming produced a revised Supplemental DEIS for the Pinedale Anticline Project Area, which did not include the CALGRID analysis due to concerns about the inaccuracy of the CALGRID analysis. Therefore, it is inappropriate to use the Pinedale CALGRID analysis to project emissions for the West Tavaputs Project.  | The use of the CALGRID results tiered from the Pinedale Anticline Project was agreed upon in a telephone conference call discussion on May 11, 2007, between the Price Field Office, BLM Utah State Office, BLM National Air Quality Modeler National Operations Center Division of Resource Services, UDEQ, and B&A (the BLM's third-party contractor for this project). The EPA was invited to join the conference, but declined. As previously described, the results of tiering to the CALGRID analysis showed results below the ozone NAAQS. However, these values now exceed the new ozone 8-hour NAAQS, so additional ozone modeling has been performed for inclusion in the FEIS. |
| 1148      | Air Quality     | In view of the lack of reliability of the ozone modeling performed for the DEIS, the omission of project-specific data from the model, and the ozone levels modeled and predicted for this Proposed Action, the EPA concludes that additional cumulative and project-specific air impact modeling should be completed. If this additional modeling information indicates that this project would contribute to exceedances of the ozone standard, then EPA recommends that additional air quality emissions controls be included in the EIS to mitigate these exceedances. | See response to comment #1142. Additional air quality mitigation has been added to the FEIS as recommended by the EPA.  |

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| 1149      | Air Quality     | EPA recommends that BLM prepare a Supplemental DEIS that includes modeled demonstrations of both this project and cumulative pollutant emissions sources from other activities in the Uinta Basin demonstrating whether the Proposed Action will contribute to violations of the ozone NAAQS. EPA Region 8 has been providing comments on the Vernal Field Office's cumulative impacts analysis of air quality in the Uinta Basin, known as the Uinta Basin Air Quality Study (UBAQS), which is slated to be completed in the next few months (see letter dated February 8, 2008, to Bill Stringer, Vernal Field Office, from Larry Svoboda, EPA Region 8.). If our comments on the UBAQS are adopted, the UBAQS work could be incorporated into the suggested supplemental DEIS to fulfill the NEPA cumulative and project-specific air impact modeling requirements for this project. | See responses to comments #1142 and #1316.  |
| 1150      | Air Quality     | EPA commends BLM for the ozone mitigation currently proposed in the DEIS.   | Mitigation measures in Section 2.6-8 have been slightly modified to include additional measures discussed with the EPA. |
| 1151      | Air Quality     | It may be appropriate for the BLM to impose specific additional mitigation measures in order to further reduce the project's ozone precursor emissions to assure that this project avoids contributing to the exceedances of the NAAQS necessary to protect public health. Additional emission reductions may be essential to demonstrate compliance with these standards, if the result of the cumulative impacts analysis show modeled exceedances or that this project contributes to such exceedances.  | See response to comment #1150.  |



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| 1152      | Air Quality       | In accordance with our policies and procedures for reviews under NEPA and Section 309 of the CAA, EPA is rating this DEIS as "Inadequate Information" or "3". This "3" rating indicates that the DEIS does not adequately assess the potential air quality impacts of the proposed project and EPA, and therefore, is unable to assess the potential environmental impacts of this project. | A "3" overall rating seems inappropriate considering the extensive work that was performed by the BLM to assess near-field development and operational activities for criteria pollutants and HAPs. Also, extensive far-field CALPUFF analysis was performed for each of the five alternatives and a cumulative analysis was completed that considered past, present, and reasonably foreseeable activities in northeastern Utah and western Colorado. The models used for the air quality assessments included in the DEIS were carefully developed by the BLM's National Air Quality Modelers and the BLM's third-party air quality experts. The protocols were reviewed and commented on by the Utah DAQ. Furthermore, the EPA was provided a courtesy copy of the draft air quality protocol prior to the development of the EIS and the EPA did not respond with any comments or suggestions for improvement or modification. Perhaps an alternative and more appropriate EPA rating would have been a "2" with a contingency that "the ozone results that tiered off previously published NEPA documents indicated compliance with ozone standards. However, since the DEIS was published, the EPA has issued new and lower standards that now result in potentially small ozone exceedances under the new standards. As such, the EPA requests additional ozone modeling as a contingency for this rating." Regardless, the FEIS has been modified to include full-scale ozone modeling. |
| 1153      | Air Quality       | The rating of "3" is based on the lack of adequate information from air quality modeling to disclose the predicted ozone concentration under varying emission scenarios. Additional air quality modeling and analysis should be completed and made available for public comment in a supplemental DEIS.   | See response to comment #1152.  |
| 1154      | Air Quality/ NEPA | Based upon discussions between EPA and BLM, both agencies agree that the path forward will include BLM conducting additional air quality modeling and possibly additional air emission controls to further reduce the project's VOC and NO <sub>x</sub> emissions. This additional information will allow EPA to evaluate the environmental impact of the proposed project.                 | BLM has conducted additional ozone modeling and included additional mitigation measures to further reduce VOC and NO <sub>x</sub> emissions based on the results of the modeling.   |
| 1155      | NEPA/ Air Quality | If the air quality issues cannot be resolved, this project could be a potential candidate for referral to the Council on Environmental Quality (CEQ).   | Air quality modeling for the analysis indicates that the proposal would not lead to exceedances of the NAAQS other than ozone or PSD Class increments. Therefore, impacts on air quality are not an issue that requires further resolution. Additionally, BLM would require the applicants to meet all other Federal, State, and Local requirements, and obtain necessary State and Federal permits.  |
| 1156      | Air Quality       | The visibility impairment assessment used for this analysis relies on a first-level seasonal screening methodology with the CALPUFF model following the Federal Land Managers' Air Quality Related Workgroup methodology document (FLAG 2000). EPA is concerned about application of the FLAG screening criteria and which FLAG Method (2 or 6) was used for this analysis.                 | The analysis was performed using the Appendix W EPA-approved CALMET/CALPUFF/CALPOST modeling system. Screening level visibility was processed with CALPOST using Method 6 (the process that uses monthly average f(RH) values). See also response to comments #224, #347, #350, and #360.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
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| 1157      | Air Quality     | The purpose of the daily refined analysis, as referenced in the DEIS, is not clear. The visibility analysis showed no adverse impacts to Federal Class I areas; however, the Preferred Alternative would cause significant visibility impairment to Sensitive Class II areas, including the Ouray National Wildlife Refuge (57 days per year) and Dinosaur National Monument (4 days per year).  | Page 4-41 of the DEIS included a discussion on Visibility Impairment of the DEIS for the explanation of the visibility analysis methodology as agreed upon in the Air Protocol for the WTP EIS (which was reviewed by the EPA). Visibility impacts were evaluated at Federally-mandated Class I areas, such as National Park and Wilderness Areas. Visibility impacts were also evaluated at “sensitive” Class II areas for disclosure purposes only, since there is no visibility protection for Class II areas under any Federal, State or local law. See also response to comments #224, #347, #350, and #360.  |
| 1158      | Air Quality     | EPA believes the specific FLAG Method should be specified in a supplemental DEIS, as well as details associated with the daily refined analysis. Given the relative proximity of Sensitive Class II areas near this project, additional NO <sub>x</sub> mitigation beyond the strategies already described in the DEIS should be considered to reduce the degree of visibility impairment in the sensitive Class II areas noted above.   | See response to comments #224, #347, #350, #360, #1156 and #1157.  |
| 1159      | Air Quality     | The DEIS discloses summary results from air modeling (CALGRID) conducted for the proposed Pinedale Anticline project and other cumulative emission sources. This analysis did not use the emissions from this project, but rather used a qualitative comparison of ozone impacts by comparing the size of the West Tavaputs project to the much larger Pinedale Anticline project, thus concluding that the impacts must be less at the West Tavaputs than at Pinedale. With predicted ozone concentrations at or above the new ozone standard, and the observation that the Vernal, Utah, air monitoring station indicated ozone concentrations at 0.068 ppm last summer, the EPA is concerned with the health impacts associated with the projected 0.075 and 0.077 ppm ozone concentrations with this proposed project. | The use of the CALGRID results tiered from the Pinedale Anticline Project was agreed upon in a telephone conference call discussion on May 11, 2007 between Price Field Office, BLM Utah State Office, BLM National Air Quality Modeler National Operations Center Division of Resource Services, UDEQ, and B&A air quality specialists. The EPA was invited to join the conference call, but failed to participate. As previously described, the results of tiering to the CALGRID analysis showed results below the ozone NAAQS under EPA standards at the time. However, these values now exceed the new ozone 8-hour NAAQS. In response to public comments regarding ozone impacts, the FEIS has been modified to include an analysis to determine project-specific ozone contributions. |
| 1160      | Air Quality     | EPA recommends that BLM update the ozone (O <sub>3</sub> ) analysis using a photochemical grid model such as CAM <sub>x</sub> or CMAQ.   | Full-scale ozone modeling has been conducted for the FEIS using CMAQ.  |
| 1161      | Air Quality     | The suggested supplemental DEIS should include modeled demonstrations that the Proposed Action will not incrementally contribute to violations of a NAAQS.   | See response to comment #1142 and #1316.   |

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| 1162      | Air Quality     | In view of the ozone levels modeled, predicted and monitored, and depending on the results of the supplemental air quality modeling, BLM may need to develop additional air quality mitigation to reduce NO <sub>x</sub> sources and other ozone forming precursors such as volatile organic compounds (VOCs) and formaldehyde.   | See response to comment #345.           |
| 1163      | Air Quality     | The Four Corners Task Force, with input from Industry, Federal, State and local agencies, has summarized several emission control strategies including BMPs that could be incorporated into the suggested supplemental DEIS. For example, it would be appropriate to have the company include EPA's Natural Gas Star BMPs for ozone reduction. These BMPs would include avoiding the use of high-bleed pneumatic devices, as these valves will release VOCs and methane, and the installation of flash tank separators on proposed dehydration systems and produced water separators. | See response to comments #345 and #467. |
| 1164      | Air Quality     | Consideration should be given to using lower NO <sub>x</sub> emitting drill rig engines (Tier III or Tier IV) and centralized condensate collection systems to reduce mobile source emissions.  | See response to comment #345.           |
| 1165      | Air Quality     | Applying BMPs increases the amount of natural gas obtained from the project and thus is consistent with BLM's objective of assuring maximum hydrocarbon resource recovery from these Federally-issued natural gas leases.   | See response to comment #345.           |
| 1166      | Air Quality     | We commend BLM for requiring vapor recovery at most facilities, and flaring where vapor recovery is not feasible and thus necessary, as mitigation measures to be applied to the Proposed Action and Alternative E. (DEIS at page 2-1 18.)  | See response to comment #345.           |

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| 1167      | Air Quality     | The table on page 5-9 of the DEIS displays the near-field air quality conditions due to the project and estimated cumulative impacts. There is concern regarding particulate matter at the 2.5 micron size (PM <sub>2.5</sub> ) because the project modeling indicates that predicted impact from this project would add 9 µg/m <sup>3</sup> to the estimated background level of 25 µg/m <sup>3</sup> . Assuming that the estimated background level is accurate, this would result in a near-field concentration of 34 µg/m <sup>3</sup> , which would be close to exceeding the NAAQS 24-hour PM <sub>2.5</sub> limit of 35 µg/m <sup>3</sup> . | See response to comment #360.   |
| 1168      | Air Quality     | EPA is also concerned about the use of and basis for the estimated background level for PM <sub>2.5</sub> . The remoteness of the area and the large distance to monitoring stations make it extremely difficult to reliably estimate the area's background concentration of particulate matter.   | See response to comment #360.   |
| 1169      | Air Quality     | EPA recommends BLM update the particulate matter section with more current monitoring data, and also identify all background concentration data locations and periods of measurement.  | See response to comment #360.   |
| 1170      | Air Quality     | The cumulative air quality impact analysis should be re-evaluated for any background data changes.   | To require a supplemental EIS every time new information comes to light would render agency decision-making intractable; the agency would always be awaiting updated information only to find the new information outdated by the time a decision is made. Also see response to comment #360. |
| 1171      | Air Quality     | Any adverse impacts to an air quality standard should be addressed with effective mitigation control measures. These control measures may include combustion source emission control, additional road dust abatement and control, or other means as long as those measures are protective of the region's cultural resources.  | See response to comments #1 and #360.   |

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| Comment # | Topic/ Resource                              | Public Comment  | BLM Response   |
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| 1172      | Cultural                                     | The DEIS does not explain how the impairment of cultural sites from dust will be avoided or reduced. The DEIS lists several road maintenance options: 1) use of fresh water for dust suppression, 2) use of magnesium chloride, 3) the use of dust suppressing enzymes, or 4) the placement of hard surfacing materials, such as asphalt or chip seal (DEIS at page 2-37). The DEIS, however, does not provide specifics regarding where each of these options might be appropriate and does not acknowledge the shortcomings of certain options.   | See response to comment #651.<br><br>The positive and negative impacts associated with the use various dust suppressants, including water, were discussed in Appendix F (Transportation Plan) of the DEIS. The environmental impacts of suppressants which the operators are now using are discussed in Appendix R as well as individual resource sections.<br><br>The positive and negative impacts of hardening road surfaces are discussed in Section 4.14.2.4. |
| 1173      | Cultural/<br>Transportation/<br>Alternatives | It should be noted that EPA's risk assessment of toxicity of dust suppressants involves testing these compounds for effects upon invertebrate aquatic organisms. EPA analyses of dust suppressant products, however, have not been evaluated with respect to potential damage to material properties such as aesthetic or physical changes in cement, marble or granite sculpture, or to rock art in its native setting.  | This clarification has been made in the text.  |
| 1174      | Cultural                                     | EPA has no authority regarding cultural resource protection. Section 106 of the National Historic Preservation Act requires that Federal agencies consider the effects of Federal undertakings on historic properties and resolve adverse effects prior to approving the undertaking. We recommend that BLM consults with the National Park Service regarding the development of a specific dust abatement plan that will protect these cultural resources. Since MgCl <sub>2</sub> could have an additional deleterious effect on the physical integrity of these panels, avoiding the use of this compound appears to be essential. | In compliance with Section 106 requirements, the BLM is consulting with SHPO and the ACHP. Under Alternatives C, D, and E, operators would use dust suppressants other than magnesium chloride. Also see responses to comments #8 and #651.  |
| 1175      | Cultural/ Alternatives/<br>Transportation    | Because the reference in the DEIS to "EPA-approved" dust suppressants may be misleading, the EIS should include information that EPA's approval relates solely to the aquatic toxicity of these products and does not imply that the use of that dust suppressant would not have an adverse effect upon either the aesthetic or physical properties of rock art panels.   | See response to comment #1173.   |

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| 1176      | Water           | Protecting the area's streams is particularly vital because Nine Mile Creek serves as habitat for endangered fish species at its confluence with the Green River.   | The Proposed Action and alternatives contain measures to minimize the impacts to Nine Mile Creek, including the use of BMPs to minimize the additional sedimentation to Nine Mile Creek, and adherence to the site Spill Prevention, Control, and Countermeasure (SPCC) Plan. The final EIS also includes a long-term water quality monitoring program that would allow the BLM to monitor changes to Nine Mile Creek and other surface waters for the life of the project.   |
| 1177      | Water           | With respect to produced-water management, the Proposed Action would include transport of produced waters to several lined evaporation and storage ponds. Such ponds have a risk of failure due to rapid changes in temperatures affecting the synthetic materials used to line the ponds.  | As explained in Section 2.1.5.3 of the FEIS, the water storage ponds would be constructed in accordance with all applicable regulations. The storage ponds would be used mainly as water management structures. Produced water would be primarily disposed of by deep injection or at off-site commercial disposal sites.<br><br>A statement has been added to Section 4.4 that recognizes the potential for leaks or failures for storage ponds.   |
| 1178      | Water           | A means of produced-water management would be through the use of underground injection, which is regulated under the Safe Drinking Water Act (42 U.S.C. 300h et seq.). If properly managed, underground injection does not involve a risk of surface failure. If properly completed with mechanically sound wells, injection offers a more permanent solution preferable to surface ponding.                                      | See response to comment #516.   |
| 1179      | Water           | Rapid response time is critical to effective spill management and contaminant avoidance. Should a spill of diesel fuel, toxic hydraulic fracturing fluid, or produced water occur, prevention of that spilled material's movement into an aquatic habitat is essential, especially in the ecologically-critical Nine Mile Creek.  | As stated in Section 4.4.1.3, using release probabilities for a variety of highway bulk containers, between 2 and 10 significant releases of condensate or produced water could be expected to occur during the life of the project. The probability of a direct spill into a water course would be substantially less. Site-specific SPCC Plans would detail the reporting and cleanup procedures to be used in the case of a spill.   |
| 1180      | Water           | We suggest that certain improvements in produced-water management and spill response measures will help assure this aquatic habitat remains unimpaired during project activities. EPA recommends that the suggested supplemental DEIS describe the suitable receiving aquifers, the relative costs, and environmental risk differences between evaporation ponds and underground injection to manage these produced water wastes. | The DEIS provides all existing information relative to the aquifers in the area. These aquifers are somewhat poorly characterized, and have been used only for industrial and irrigation purposes to date. There are no reasonably foreseeable future uses for the groundwater from these aquifers other than the current uses. The relative costs for each water management technique cannot be estimated at this time. These costs would depend on the amount of water produced by each well, the quality of the produced water, and the feasibility of injecting large quantities of water into the deep bedrock aquifers, among other factors. There are no studies on which to base a comparison of environmental risks between the two disposal methods. The Final EIS has been revised to include ground water protection measures that have been developed by the BLM in coordination with the EPA. |

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| 1181      | Water           | Additional information is needed to identify the anticipated spill response time. This information should also address the feasibility of pre-positioning spill containment materials in the canyon to reduce response time. This analysis should further explain the company's capabilities on the isolated plateau to effectively respond and clean up any toxic spill should one occur.   | Detailed spill response information would be presented in the site SPCC Plan.                |
| 1182      | Air Quality     | EPA believes the greenhouse gases section in the EIS should be expanded, keeping in mind that there are currently no EPA regulatory standards directly limiting greenhouse gas emissions. Since the issuance of the April 2, 2007, Supreme Court decision in <i>Massachusetts v EPA</i> , 127 SCt 1438 (2007), the EPA has been developing a response to the remand, as well as evaluating the broader ramifications of the decision throughout the CAA. On March 27, 2008, the Administrator announced that he has directed his staff to draft an Advanced Notice of Proposed Rulemaking (ANPR) to discuss and solicit public input on the specific effects of climate change and the interrelated issues raised by the possible regulation of greenhouse gas emissions under the CAA. Thus, this comment letter does not reflect, and should not be construed as reflecting, the type of judgment that might form the basis for a positive or negative finding under any provision of the CAA. | Information on green house gas emissions has been added to Sections 4.3 and 5.3 of the FEIS. |
| 1183      | Air Quality     | EPA recommends a comparison to national and global GHG emissions. Emissions of greenhouse gases in the United States have been quantified by the U.S. Department of Energy and EPA in publications released in 2007. Global emissions have been quantified by the United Nations Intergovernmental Panel on Climate Change.  | Information on green house gas emissions has been added to Sections 4.3 and 5.3 of the FEIS. |
| 1184      | Air Quality     | EPA recommends including a greenhouse equivalencies calculator to translate greenhouse gas emissions from the project in terms that are easier to conceptualize. For example, a comparison of emissions to a range of other greenhouse gas emitting activities or sectors.   | Information on green house gas emissions has been added to Sections 4.3 and 5.3 of the FEIS. |

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| 1185      | Air Quality       | EPA recommends that the cumulative impacts analysis also include a general, qualitative discussion of the anticipated effects of climate change, including potential effects at a regional level.   | Information on green house gas emissions has been added to Sections 4.3 and 5.3 of the FEIS.   |
| 1186      | Air Quality       | The EIS should identify possible mitigation measures that may be implemented to reduce and capture methane gas and reduce potential greenhouse gas emissions. There are a number of voluntary, cost-effective technologies and practices to reduce and off-set greenhouse gas emissions. We recommend that BLM encourage gas lessees to participate in EPA's Natural Gas STAR Program. The Natural Gas STAR Program is a flexible, voluntary partnership between EPA and the oil and gas industry. Through EPA's Natural Gas STAR Program, EPA works with companies that produce, process, transmit, and distribute natural gas to identify and promote the implementation of cost-effective technologies and practices to reduce emissions of methane. | See response to comments #345 and #467.  |
| 1187      | NEPA/ Air Quality | EPA believes that a supplemental DEIS should identify effective and enforceable mitigation strategies to ensure environmental and public health protection. EPA recommends the mitigation plan include a mechanism for public accountability, such as stakeholder forums and/or annual status reports. Public accountability can be an important tool in ensuring mitigation targets are met in a timely manner.  | <p>On BLM-administered land, the BLM is responsible for approving a project component's final APD, the surface use and subsurface drilling programs, and appropriate mitigation, compliance, and reclamation measures.</p> <p>BLM records regarding oversight of field development are available to public inspection and review, and are subject to restrictions for proprietary information and privacy act considerations. EPA and the public may request such information at any time.</p> <p>Air quality mitigation measures recommended by the EPA and UDAQ have been added into the FEIS (see Response to comment #345).</p> <p>Also see response to comment #1316.</p> |



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| 1188      | Air Quality     | Page 3-18, ambient air data should be updated with data at least through 2006. Also, identify ambient air monitoring stations for data depicted in Table 3.3-3.   | <p>The Uinta Basin lacks sufficient air quality monitor locations. Therefore, the background values included in this EIS are the best available data representative of rural areas in eastern Utah. Also see response to comment #360, which states that the BLM does not have the regulatory authority to set background concentrations for pollutant background levels. The State of Utah has the authority to regulate air quality matters for the majority of the WTP Project Area. These responsibilities include establishing air pollutant background levels, especially in rural areas where monitoring has not been conducted.</p> <p>The PM<sub>2.5</sub> values in the EIS have been modified to acknowledge new background concentrations for PM<sub>2.5</sub> based upon limited PM<sub>2.5</sub> monitoring conducted in Vernal, Utah and Uintah/Duchesne counties in 2007. These concentrations were derived through cooperation between the UDAQ and the BLM State Office Air Quality Specialist. See Section 3.3.2.2 and Table 3.3-3 for updated PM<sub>2.5</sub> background concentrations.</p> <p>For the remaining criteria pollutant background concentrations, values provided by the UDAQ remain the best available information.</p> |
| 1189      | Air Quality     | Page 3-25, deposition data should be updated through 2006 in Tables 3.3-6 and 3.3-7.  | The deposition data is current through 2007 (when modeling was completed) in the FEIS.  |
| 1190      | Air Quality     | Page 3-26, please identify origin(s) and year(s) measured of data presented in Table 3.3-8.   | References have been added to Table 3.3-8.  |
| 1191      | Air Quality     | Pages 3-26 through 3-3 1 should be updated to reflect the IMPROVE data measured through 2006. For Numbers 1-4 above, Ambient Monitoring Data can be found at these locations.   | See response to comment #1189.  |
| 1192      | Air Quality     | The VOC emission rate for the Proposed Action Storage Tank is considerably higher than the Preferred Action's Storage Tank emission rate. It is unclear why the VOC emissions are different.  | Under Alternatives C, D, and E, vapor controls would be placed on storage tanks. As a result, VOC emissions would be reduced by 95 percent as compared to the Proposed Action. The text has been revised to include this explanation.   |
| 1193      | Air Quality     | It appears that VOC emission estimates from pneumatic devices or gas-pneumatic methanol injection pumps have not been included in the inventory. Will either pneumatic devices or gas-pneumatic methanol injection pumps be used?                 | VOC emissions from pneumatic devices have been added to the inventory for all alternatives and are included in the inventory for ozone modeling.  |
| 1194      | Air Quality     | The VOC flash emissions from condensate storage tanks are provided and are proportional to the production in barrels per day. The estimates used 1.5 bbl/day for Alternative A and 1.0 bbl/day for Alt. E. What is the basis for this difference? | The basis for the differences in the DEIS was incorrect formatting. The original spreadsheet cell lacked appropriate decimal places in Alternative E. When changed to one decimal place, Alternative E also has 1.5 bbl/day. A correction has been made in the FEIS.  |

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| 1195      | Air Quality                 | To estimate condensate storage tank emissions at well sites, a liquid sample from the existing compressor station was used. However, this would presumably be after flashing has occurred. We recommend obtaining a pressurized liquid sample at the outlet of the separator for a more representative factor in estimating the condensate storage tank emissions.  | The liquid sample used for the analysis was captured from the separator prior to flashing.   |
| 1196      | Air Quality                 | The proposed mitigation is to flare at every well site to control emissions from the condensate tanks and dehydrators. Vapor recovery should be considered rather than flaring, as this would conserve the amount of natural gas recovered. While we believe it is reasonable to assume 95 percent destruction efficiency for a flare, they should be equipped with continuous temperature monitor on the pilot flame and auto-igniters to assure this rate of destruction. | See response to comment #345.  |
| 1197      | Air Quality                 | For the well site dehydrators, an estimated lifetime average of throughput was used. Section 2.1.5.1 indicates initial flows of 2-4 MMscfd for shallow wells and 8 MMscfd for deeper wells, but this estimate used only 0.384 MMscfd for each well. While production will decline over time, drilling 128-168 wells/year appears to indicate that a higher throughput should be used.   | See response to comment #1197.   |
| 1198      | Air Quality                 | For estimating emissions from completion flare emissions, 2 days is used, but Section 2.1.3 indicates it will take about 29 days per shallow well and 54 days per deeper well for completion activities.  | Flaring would occur after the well is completed for a period of 48 hours according to the operators. Completion activities include setting up the frac rig, fracturing the relevant zone(s), fracturing one zone at a time, more set up time if more than one zone is to be fractured, tear down of the rig, and installation of production equipment. See also response to comment #1197.   |
| 1199      | Air Quality                 | The emissions inventory uses 2.0 g/hp-hr for carbon monoxide and slightly less emission rate for NO <sub>x</sub> . How will these relatively low emission rates be achieved? The EIS should specify what engines will be selected, such as lean burn with oxidation catalyst engines or rich burn with non-selective catalytic reduction.   | As footnoted in the inventory, these rates are based on the control rates at the existing Dry Canyon Facility. The inventory also specifies use of uncontrolled emission factors for Rich-Burn Engines. These emission factors were chosen based on existing Dry Canyon equipment; however, a mixture of engines could be used. NEPA documents are intended to be disclosure documents of potential impacts based on the best available data. Specific engines and controls would also be assessed during the permitting process. See response to comment #1197. |
| 1200      | Land Use/<br>Socioeconomics | As a property owner in Nine Mile Canyon, I am greatly concerned about the impact oil and gas development will have on my property value.  | The EIS qualitatively recognizes that implementation of the Proposed Action or alternatives could result in decreases in property value (see Section 4.6).   |

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| 1201      | Alternatives/<br>Socioeconomics      | In 2005, the BLM assured us that there would be no industrial surface occupancy allowed within Nine Mile Canyon (as proposed in the BLM's Preferred Alternative for the Price Field Office Resource Management Plan). I found great comfort in this assurance and was grateful that the BLM had taken this position. Now, however, I find that on three of the proposed DEIS alternatives (including the BLM's preferred alternative), two more pump stations are being proposed within the canyon. One, near the mouth of Harmon Canyon and a second pump station is being proposed either on my property or adjacent to it. Either way, this would have a severe and irreversible negative-impact on my property value. Not only will the pump station itself have a significant visual and audible impact, the heavy industrial traffic and its access route have no other option but to cross my property in order to reach it. This would create a significant visual scar on our property, would disrupt its cultural and historic integrity, and severely reduce its market value. | <p>No facilities were proposed on Federal lands within Nine Mile Canyon as part of BBC's original development plan presented to the public at the scoping meetings held in 2005. However, one of the primary issues identified during the scoping process by the public was how increased traffic created by full-field development would impact the resources in the WTP Project Area. In response to this concern and through the alternatives development process it was determined by the BLM that transporting water and condensate via pipeline could substantially reduce the volume of traffic in Nine Mile Canyon and its side canyons (compare Tables 2.2-4, 2.4-4, and 2.6-4). Thus the DEIS included conceptual locations for four pump stations. The proposed pump stations would be a vital part of the proposed pipeline system and thus necessary to reduce traffic in Nine Mile Canyon.</p> <p>In the DEIS, under Alternatives A, C, and E, two pump stations were proposed in Nine Mile Canyon. The station located near the mouth of Harmon Canyon is sited on private land; whereas, the station located near the mouth of Cottonwood Canyon is located on Federal lands. The conceptual location of the pump station previously illustrated on Federal lands in Nine Mile Canyon near the mouth of Cottonwood Canyon has been removed from Figure 2.6-1 in the FEIS. Under Alternative E, the BLM has developed criteria that would be used to determine the future location of pump station(s), while taking into consideration other resource concerns.</p> <p>Additional information on the pump stations has been included within Section 2.1.5.3 of the EIS. Potential impacts of the pump stations have been more thoroughly addressed in chapter 4 resource sections (e.g., cultural, recreation, and noise).</p> |
| 1202      | Alternatives/ Cultural               | The proposed pump station near Cottonwood Canyon is within a couple hundred feet of a significant Fremont village and even closer to several other archaeological sites, all of which have been surveyed and recorded with the State of Utah. Industry should be required to keep all other surface occupancy out of the canyon bottom and placed on top of the plateau.  | See response to comment #1201.  |
| 1203      | Alternatives                         | The DEIS inadequately addresses and too easily dismisses consideration of alternative routes to the plateau.  | See response to comment #34.  |
| 1204      | Alternatives/<br>Transportation Plan | The DEIS makes no reference to any engineering studies that have been conducted that would support the BLM's decision to exclude the existing Sunnyside/Bruin Point access alternative.   | See response to comment #34. The Bruin Pointe alternative access route was evaluated by a BLM engineer. Information from the preliminary engineering assessment which was unintentionally omitted from the DEIS has been added to the FEIS in Appendix F-4 of the Transportation Plan.  |
| 1205      | Alternatives                         | While the Bruin Pointe route would require longer travel time from the Uinta Basin, convenience should not be a consideration. Why couldn't part of BBC's operations be set up in the town of Sunnyside?  | <p>See response to comment #34. Travel distance is only one of many factors that were considered when the BLM made the decision to eliminate the Bruin Pointe route from detailed analysis. Other reasons are discussed in Section 2.8.6.</p> <p>It should also be noted, that large increases in travel time can impact other resources such as air quality.</p>   |

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| 1206      | Alternatives/ Wildlife         | The claim that opening the Bruin Point Route year-round could potentially impact sage-grouse and big game species seems inadequate because if wildlife well-being was truly being considered by the BLM, BBC would not be allowed to continue working on their current project through the winter months.  | See response to comment #34. The EIS considers a range of alternatives, some of which allow year-round drilling, and others which prohibit winter drilling activities. In addition, it should be noted that under the Proposed Action, BBC has voluntarily agreed to implement a Wildlife Mitigation Plan that is intended to mitigate the impacts of winter drilling activities (see Appendix B and Section 2.2.2.2). Under Alternatives C and E, the BLM has adopted special protection measures for wildlife to address the effects of winter development on wildlife (see Section 2.4.1.2 and 2.6.1.4). Furthermore, under Alternatives C and E, the BLM has also included an Agency Wildlife Mitigation Plan, which is a modified version of BBC's Wildlife Mitigation Plan, developed in coordination with UDWR that is intended to offset, to the extent reasonable, the effects of full field development in its entirety (see Sections 2.4.1.3 and 2.6.1.5, and Appendix E). |
| 1207      | Alternatives                   | The BLM failed to address the use of Trail Canyon (to Harmon Canyon), which would significantly reduce the amount of traffic that would otherwise have to use Nine Mile road.  | See response to comment #34.  |
| 1208      | Alternatives                   | The DEIS says the project would likely impact cultural resources in Trail Canyon. It is my understanding that this area has never been surveyed, so what information is the DEIS basing conclusion on? "Likely" is less than a definitive reason. Even if there are cultural sites within Trail Canyon, their protection can be addressed just as they should be anywhere else. To continue to sacrifice the many hundreds of sites within Nine Mile without indentifying whether or not there are even any in Trail Canyon seems more like an excuse than a valid reason for dismissal. | See response to comment #34.  |
| 1209      | Transportation                 | The DEIS is unrealistic in addressing the number of industrial vehicles that would be traveling the canyon once the project is underway. Projections for the current 38-well project estimated that there would be somewhere around 30 round trips made by industry each day. Carbon County's own count was five times this figure. It only seems reasonable that the figure being offered in this DEIS should be multiplied by 5, as well this would put the count at somewhere around 1,500.   | See response to comment #880.   |
| 1210      | Transportation/ General        | The DEIS does not consider what kind of law enforcement will be necessary to oversee such a constant flow of traffic.  | See response to comment #945.   |
| 1211      | Wildlife/ Cultural/ Recreation | How can wildlife, cultural sites, and tourists be expected to fare with so much industrial traffic on the road?  | The impacts of increased traffic on wildlife, cultural resources, and recreation are discussed in Sections 4.9, 4.10, 4.11, and 4.12, respectively.   |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
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| 1212      | General         | Where are the studies showing the long-term impact that a constant cloud of dust and chemical dust suppressants will have on canyon rock art and its other equally valuable resources?  | The impacts of dust on rock art are discussed in Appendix G- Dust Study and Section 4.12- Cultural Resources. The impacts of fugitive dust on other resources (e.g., wildlife, visual resources, recreation, water resources, vegetation, and human health and safety) are discussed in other resource-specific analysis sections within the EIS.  |
| 1213      | Cultural        | What about the potential damage to cultural sites caused by the constant vibration as these multi-ton rigs travel up and down the road?   | The impacts of vibration, resulting from increased traffic, on rock art and other associated cultural sites are discussed in Section 4.12.1.2 of the EIS.  |
| 1214      | General         | Blaine Miller, the Price Field Office's archaeologist with nearly 30 years of experience in the canyon, was removed from the project at the insistence of BBC. The archaeology of the canyon has been represented by Julie Howard at the BLM Utah State Office. This switch of responsibilities does little to serve the public's interest, only increases the public's distrust in the DEIS process, and exposes what seems to be an apparent bias towards accommodating industry.                                   | The priority assignment of BLM resource specialists to a particular project is made at management discretion. Qualified cultural resource specialists have assisted in both the development of the alternatives and preparation of the cultural resource analysis contained in the EIS. A list of the preparer's qualifications is included in Chapter 7.  |
| 1215      | Cultural        | The DEIS needs to show an accurate and comprehensive understanding of the Canyon's archaeology, otherwise how can it possibly work to protect it.   | Baseline information regarding cultural resources in the WTP Project is discussed in Section 3.12 of the EIS. The comment does not identify any specific deficiencies that the BLM can respond to.   |
| 1216      | Water Resources | Where is all of the baseline water quality and flow data? How can the impact of the project be assessed without it? Where is the inventory of all of the canyon's water sources? How is their integrity to be tracked if they aren't even identified? How are dust suppressants to be kept out of the streams, irrigation ditches and groundwater? Where is BBC going to be getting the water needed for their project? How does the drilling affect the areas aquifers? All of these questions need to be addressed. | <p>See response to comment #773.</p> <p>In addition, as discussed in Section 3.5, a survey of springs and seeps was conducted during August 2008 to provide baseline data concerning flow volumes and the general water quality of springs within areas where development is proposed. The survey consists of five components: GIS mapping of known springs and seeps; review of aerial photography to select locations likely to contain additional springs and seeps; a reconnaissance spring survey in the areas identified as likely to contain springs and seeps; collection of flow and field parameter data from selected springs and seeps; and data review and compilation.</p> <p>Alternatives C and E include a long-term water quality monitoring program, which would allow the BLM to track changes in water quality and identify impacts related from ongoing dust suppression efforts.</p> <p>Water sources for dust suppression and development activities are discussed within Sections 2.17 and 3.5.</p> <p>Impacts to aquifers are discussed in Section 4.5.</p> |

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| 1217      | Water           | What happens if the water in the Nine Mile Canyon becomes polluted? What will be done to stop it and how will we be compensated? We own the rights to our well water and the rights to use water from the stream to irrigate our fields - if they become polluted how are we to adapt? The DEIS is completely inadequate in answering these questions.  | The purpose of the EIS is to disclose reasonably foreseeable environmental impacts, which could occur if the Proposed Action or alternatives were implemented. Impacts to both surface water and groundwater resources are addressed in Sections 4.5 and 5.5. Other Federal statutory environmental laws, as well as local and State rules and regulations, govern water quality and establish protocols for addressing any issues that may be created by these impacts. |
| 1218      | NEPA            | The current DEIS should be withdrawn and brought back for public comment after a more complete, detailed and conclusive proposal has been drafted.  | See responses to comments #217 and #1316.  |
| 1219      | Alternatives    | The DEIS fails to consider an alternative route that bypasses Nine Mile Canyon. Neither of the two BBC-contracted road engineering reports attempts to find an alternative to Nine Mile Canyon. The BLM's own minimal two-day study is only designed to determine the impact of bringing existing roads into compliance with BLM standards. The failure to consider this fundamental issue invalidates this DEIS, and requires the development of a new EIS with an alternative that addresses this very important issue.   | See response to comment #34.   |
| 1220      | Alternatives    | It is not correct that a Trail Canyon access route would only provide transportation to Prickly Pear Mesa. Once on the mesa there are access routes from mesa to mesa. The eastern portions of the project are tied into each other via Class I and Class II roads. Only the Prickly Pear area in the west has no direct road access to the other mesas as shown on Figure F-1. However, we note that there are unused road segments extending beyond the boundaries of the project area that would provide transportation routes to the other mesas from Prickly Pear. Thus it is feasible to have a single road cutting across Nine Mile Canyon that provides access to the full DEIS development area. | See response to comment #34.   |

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| 1221      | Alternatives    | When considering alternative access routes, it is not the job of the BLM to determine the economically viable location of oil well service companies; rather it is to choose an alternative that best meets the multiple use needs of the public. If service companies find the longer drive described by the BLM objectionable, they have every right to relocate to Price, Wellington, Sunnyside, or other locales of their choice to avoid the financial burden.  | See response to comment #34.   |
| 1222      | Alternatives    | Winter maintenance of the Bruin Point Road is a moot point. The 9000-foot elevation of the plateau will require all roads to be maintained during winter months.   | See response to comment #574.  |
| 1223      | Alternatives    | All access routes onto the mesa tops require engineering. The determination that this route would require "extensive" engineering is without any support in the DEIS. We can find no study of the viability of this route by either the BBC contract study nor the BLM's own study.  | See response to comment #1204. |
| 1224      | Alternatives    | The concern that use of the Bruin Point route would influence big game and sage-grouse is something that distracts attention from the real issue. The BLM should consult their own maps, especially 3.9-2; 3.9-3; 3.9-6; 3.10-2, and realize that all of these alternatives already present huge impacts and access to sage-grouse and big game species habitat.   | See response to comment #576.  |
| 1225      | Alternatives    | We note that access to the Green River corridor may be a moot point based on the DEIS. Existing motorized access into the Desolation Canyon NHL is via an un-maintained and particularly hazardous road along Horse Bench. Under the Proposed Action, upgrades to Horse Bench Road would end outside of the NHL boundary, but would allow vehicles to gain easier access to overlooks into Desolation Canyon, and potentially travel the entire length of this unmaintained route through the NHL to its intersection with Mine Mile Canyon. | See response to comment #577.  |

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| 1226      | Cultural               | There has been no complete inventory and assessment of archeological sites within the canyon or tributaries, or their proximity to roads, or of the dust accumulating on these panels, or the impacts of dust as an airborne scouring agent on the panels, or the impacts of dust on the visibility of the panels, or the impact of dust and dust suppression chemicals and vehicle exhaust on the integrity of the rock art panels, or the impact of dust suppression chemicals and vehicle exhaust on the ability to retrieve scientific information from rock art panels, or the impact of vehicle vibrations on the integrity of rock art panels. | See responses to comments #36, #1240, 1243, and #913.  |
| 1227      | Cultural/ Alternatives | The BLM has failed to present an alternative that would protect known NRHP eligible sites.  | See response to comments #3 and #217.  |
| 1228      | Cultural               | A Class II intuitive survey should be conducted in areas of Nine Mile Canyon, side canyons, and the WTP that have not been previously surveyed. The results of this survey should be combined with current archeological data in making appropriate planning decisions.   | <p>As part of the WTP PA process, the Class I inventory was amended to include the expanded APE, which is referenced in previous RTCs and in Section 3.12.</p> <p>Under the Agency Preferred Alternative and the WTP PA (Appendix T), BBC would be required to fund a Class II inventory not to exceed 3,700 acres to better determine the extent of cultural resources within the APE. A Class II inventory is most useful for improving cultural resource information in large areas where previously conducted cultural resource surveys are insufficient and information is lacking. During development of the Class II cultural resource survey a committee recommended by the Concurring Parties and approved by the BLM will determine what areas will be surveyed including intuitive survey areas.</p> <p>Based on the BLM's previous experience conducting Class III inventories and subsequent implementation of avoidance measures (i.e., requirements for relocating, re-routing, and fencing), archaeological monitoring in culturally sensitive areas, and protocol for unanticipated discoveries, there is no evidence to suggest that the Class III inventory standards that would continue to be required are inadequate or insufficient (see Appendix N).</p> |
| 1229      | Cultural/ Alternatives | The DEIS ignores the fact that the drilling program will bring millions of person days of activity to what has been a previously isolated area. In addition, worker housing located on the plateau will serve as a base for free time exploration activities by workers, and the development and improvement of roads in the area will allow much greater public access.  | The impacts of increased visitation, as a result of a larger work force and road improvements, are discussed throughout the EIS. The impacts of worker housing locations, including the potential for increased theft and vandalism, are also discussed in the EIS. Under the Conservation Alternative (Alternative D), there would be no worker housing locations allowed within the WTP Project Area to reduce the potential for these adverse impacts. In addition, Alternatives C, D, and E, propose that the BLM gate certain roads in order to prevent increased public access into areas that are currently inaccessible.   |



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| 1230      | Cultural                           | The DEIS proposal to only conduct cultural surveys (as defined in Appendix N) within 10 acres of each well pad, 5 to 10 acres around other facilities, and a 300-foot corridor along new roads and pipelines is insufficient based on the indirect impacts that can be reasonably expected from the drilling activities. A Class II intuitive survey should be conducted in areas of Nine Mile Canyon, side canyons, and the WTP that have not previously been surveyed for the project to be in compliance with the NHPA.          | See responses to comments #1228 and #913.  |
| 1231      | Alternatives                       | It is unclear why airstrips should be necessary under any of the alternatives other than Alternative C.   | See response to comment #476.  |
| 1232      | Alternatives                       | Problematically, the DEIS does not discuss the locations of the proposed airstrips.   | The location of the existing Peter's point airstrip, the proposed Flat Iron Mesa airstrip, and fully-reclaimed Interplanetary airstrip (Prickly Pear) are shown on Figure 2.2-1 (Proposed Action). Under the BLM alternatives (C, D, and E), the Interplanetary airstrip would not be used in order to protect sage-grouse habitat. A new location on Prickly Pear has yet to be identified.   |
| 1233      | Cultural/ Recreation/ Alternatives | "A final and unique component of the Agency Preferred Alternative would require BBC and other operators to construct turnouts and/or designated parking locations at appropriate intervals on Federal lands along the Nine Mile Canyon Backcountry Byway to reduce transportation-related safety concerns." It is not clear how many turnouts can be developed. The DEIS does not specify the number of turnouts or where they will be located. As a result, we believe this gesture will not significantly improve visitor safety. | Section 2.6.1.6 of the Draft EIS states that "the turnout and parking locations would include those coinciding with site improvements identified in the BLM Recreational and Cultural Area Management Plan: Nine Mile Special Recreation and Cultural Management Area."<br><br>During development of the Programmatic Agreement (including in the Final EIS) BBC agreed to site interpretation/development of 9-11 sites within the WTP Project Area, many of which are listed in the Agreement. |
| 1234      | Alternatives                       | A stipulation of this project should be that workforce housing not be allowed anywhere in Nine Mile Canyon.   | There is no workforce housing proposed within Nine Mile Canyon under any of the alternatives.  |

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| 1235      | Alternatives                       | There is little commentary in the DEIS regarding potential wells within Nine Mile Canyon itself. However, we note that the various project maps include several well sites within the canyon. Wells within the canyon have a dramatic impact on the viewshed and visitor experience of the canyon. Land ownership associated with these wells is not clear to us. In addition, the maps indicate two pumping stations to be located within the canyon. These wells and pumping stations are being presented as part of an overall project to be considered by the BLM. The BLM needs to consider the impact of these wells and pumping stations and their cumulative impact on the entire project. We do not support the drilling of additional wells, the creation of pumping stations, or any other surface occupancy within Nine Mile Canyon. | See responses to comment s #753 and #1201.   |
| 1236      | Cultural/ Recreation/ Alternatives | New compressor stations must be located strategically on the plateaus to be outside of the viewshed and auditory range of the typical visitor within Nine Mile Canyon.   | A viewshed analysis for Nine Mile Canyon can be found on Figure 3.16-2. As illustrated by the figure, there would be no proposed compressor facilities within the viewshed. Based on the distance of proposed compressor locations from Nine Mile Canyon, as well as applicant-committed noise reduction measures, no compressors, with exceptions of the existing Dry Canyon compressor station, would be within auditory range of Nine Mile Canyon.  |
| 1237      | Alternatives                       | If the intent of the BLM is to protect the Green River corridor and Desolation Canyon NHL why were they included in the project boundaries? The project boundaries should be redrawn to remove the potential for development along the Green River corridor and Desolation Canyon NHL.   | <p>There would be no development within the Desolation Canyon NHL or the Green River corridor under any alternative.</p> <p>As discussed in Section 1.0, the WTP Project Area is bound on three sides by Sheep, Nine Mile and Desolation Canyons. The BLM has determined that use of natural features for boundaries is more appropriate than an arbitrary boundary.</p> <p>This boundary also allows the BLM to consider the indirect effects of development, which extend beyond the immediate areas of disturbance.</p>       |
| 1238      | Cultural                           | "Anticipated indirect impacts to cultural resources include the accumulation of dust and its impact on rock art, the impact of vibration and project-related erosion on cultural resources" Our observation, after many trips to the canyon, is that these impacts are direct.   | <p>In the context of the cultural resources analysis, direct effects refer to those effects that could occur to known or unknown sites as a result of surface-disturbing activities (e.g., excavation, trenching, blading, grading, or blasting). All other potential impacts to cultural resources are considered indirect within this EIS (see introduction to Section 4.12).</p> <p>The categorization of direct and indirect impacts does not imply any greater or lesser degree of significance, importance, or effect.</p> |

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| 1239      | Cultural        | The study conducted by Constance Silver in Appendix G is listed as "preliminary." The report notes that, "The final report will include all data and provide concrete recommendations for a course of action to protect the rock art of Nine Mile Canyon from impacts from dust" (DEIS Appendix G, p. 2). Why was this final study not included in the DEIS? | See responses to comments #53.  |
| 1240      | Cultural        | The EIS should include a more comprehensive study of the impact of dust, dust suppression chemicals, vehicular exhaust, and vibration in addition to a baseline archeological report along the proposed transportation route.  | <p>In an effort to better understand the effects of dust and dust suppression chemicals (magnesium chloride) on rock art, BBC voluntarily agreed to fund a Dust Study that is included in the EIS as Appendix G. One of the objectives of the Dust Study was to research precedents, if any, for scientific studies of the effects of dust on rock art. The literature search confirmed that there is no project that sets a precedent or provides an exact model for a dust study in Nine Mile Canyon. Therefore, the dust study conducted for this EIS is pioneering research.</p> <p>In accordance with CEQ regulations (CFR 1502.22), the EIS has been revised to clearly disclose that the impacts of vehicle exhaust and vibration on cultural resources within the WTP Project Area are currently unknown. In the absence of site-specific data, the best available information has been used to predict the impacts of vibration on cultural resources which could occur under the Proposed Action (see Section 4.12.1.2). Similar discussions can be found in each of the corresponding alternative-specific impact analyses. In the absence of site-specific data and/or peer-reviewed literature, BLM resource specialists have disclosed possible effects of vehicle exhaust on cultural resources.</p> <p>As part of the WTP PA, BBC has committed to conduct additional research which will investigate the potential impacts of dust on historic properties. Specifically, the study will investigate what constituents are present in various dust samples taken from rock art panels and whether the dust is causing physical degradation of the rock art (see Appendix T, Stipulation (B)(ii)). In addition, under the WTP PA BBC has agreed to fund conservation treatments, which would include developing systems for removing dust from panels that have been affected by past oil and gas development that will be tested by a rock art conservator selected by the BLM.</p> <p>Also see response to comment #3.</p> |
| 1241      | Dust Study      | While Constance Silver may be a qualified rock art conservator, it is apparent that she is not qualified to assess the effects of chemical agents (magnesium, diesel exhaust, etc.) on the various sandstone formations on which the rock art is located. This requires the expertise of a geochemist.   | See response to comment #600.   |

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| 1242      | Cultural        | The discussion of the disappearance of magnesium (on pages 6, 21, and elsewhere within Appendix G) is evidence of Constance Silver's lack of understating of chemical principals and of the basics of ionization of salts in water. When magnesium chloride ( $MgCl_2$ ) and/or magnesium oxide ( $MgO$ ) are placed on roads, it is usually mixed with lots of water and sprayed on, which is what I have personally observed. This is necessary so that it can soak in and harden the road base to a maximum depth. A thin surface coating would have little effect and would soon be broken up, so that is not a common procedure. | <p>Since the time the preliminary report was included in the DEIS, additional laboratory work was conducted at the request of Constance Silver to further examine the occurrence and source (i.e., naturally occurring or a result of road application) of magnesium chloride on rock art in Nine Mile Canyon. These additional laboratory results have been incorporated into the final dust study included as Appendix G in the EIS.</p> <p>See responses to comments #53 and #1243.</p>   |
| 1243      | Dust Study      | The dust that is adversely affecting the rock art in Nine Mile Canyon is not simply small particles of dirt. It includes aggregates of numerous chemicals from sources like diesel exhaust from heavy trucking activity, road treatment chemicals, effluents from compressor stations, dust from fertilizer and pesticide treatments on adjacent fields, etc. To understand the impact of all these chemicals on the rock art requires the expertise of a chemist. A literature review is not areplacement for a trained chemist or geochemist.   | <p>A full evaluation of all of the variables that could impact cultural resources within Nine Mile Canyon would require a complex analysis involving numerous linked indirect effects. Such an analysis is not feasible because all of the variables are not known.</p> <p>The original objectives of the dust study were to 1) examine whether the dust released into the air by various types of vehicles in Nine Mile Canyon can settle on and permanently alter adjacent rock art; and 2) to investigate the use of magnesium chloride as a dust abatement chemical. A secondary objective was to research the possible effects of diesel fuel on rock art; however, this component was not pursued due to lack of information found during the literature review.</p> <p>As part of the WTP PA, BBC has committed to conduct additional research which will investigate the potential impacts of dust on historic properties. Specifically, the study will investigate what constituents are present in various dust samples taken from rock art panels and whether the dust is causing physical degradation of the rock art (see Appendix T, Stipulation (B)(ii)). In addition, under the WTP PA BBC has agreed to fund conservation treatments, which would include developing systems for removing dust from panels that have been affected by past oil and gas development that will be tested by a rock art conservator selected by the BLM.</p> |
| 1244      | Dust Study      | Page 18 of Appendix G assumes that sections of the road were treated with $MgCl_2$ . Should not information on exactly what sections of the road had been treated have been obtained instead of just making assumptions? If this information were acquired before the dust study was commenced, it would have saved a lot speculation. Exactly why wasn't the County or BBC contacted to make this determination before any analysis commenced?   | In the past Carbon County routinely authorized use of magnesium chloride on Nine Mile Canyon Road, which is a County-maintained road. The BLM has not authorized use of magnesium chloride on BLM system roads within the WTP Project Area. Since 2008, Carbon County and BBC have not used magnesium chloride in Nine Mile Canyon. As part of the Programmatic Agreement, the Operator(s), as well as Carbon and Duchesne County have agreed to discontinue the use of magnesium chloride as a form of dust suppression within canyon bottoms in the APE unless scientific research demonstrates there are no negative effects on rock art.   |

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| 1245      | Dust Study/ Cultural | Relative to the discussion on page 5 and 6 of the Dust Study: The presence of photographs showing the effects of dust on rock art sites should not be ignored just because they do not provide an analytical particulate baseline. A photographic study and monitoring activity should be conducted immediately, and it should include more than just five sites. Why wasn't a dust study initiated by the BLM when the BLM received complaints about the dust from numerous heavy trucks affecting the rock art at least two years ago? | See response to comment #35. Photographic monitoring will be an important part of the proposed cultural resource monitoring plan. |
| 1246      | Dust Study/ Cultural | The EIS and dust study have provided little information on the effects the dust is having on rock art panels. A different all-inclusive study needs to be done, or the present one significantly expanded to provide comprehensive information on the impacts of dust on the rock art from road treatment chemicals, and vehicle exhaust and emissions from other facilities in the canyon. The study should include comprehensive recommendations for a course of action to protect the rock art.                                       | See responses to comments #3, #1240, and #1243.   |

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| 1247      | Cumulative      | The piece-meal approach that the BLM has taken to development proposals fails to give an informed picture of the impact of energy development on Nine Mile Canyon and tributaries. For example, this DEIS is treated separately from the Questar Gas Pipeline, Petro-Canada development proposals, Jakes Oil proposal, Oil Shale PEIS, etc.. There has been significant development in the region in the past few years and we expect there will be even more in the future, none of which is being planned nor presented to the public in a coordinated fashion that demonstrates cumulative adverse impacts on rock art and other cultural resources of the area. It is impossible to assess the alternatives within the DEIS without understanding the cumulative impacts of all of the development proposals within the region. Before any additional oil and gas development is allowed on the Tavaputs Plateau, we ask that an EIS be prepared that takes into account the cumulative impacts of all of these developments, and all interested parties be given consulting status. | <p>The purpose of this EIS is to evaluate the impacts of BBC and other operators' full field development plan, and to identify alternatives and mitigation measures that could minimize those impacts. Cumulative impacts, including relevant past, present, and reasonably foreseeable future actions are discussed in Chapter 5.</p> <p>With regards to consulting party status, see responses to comments #8.</p>   |
| 1248      | Alternatives    | The issues regarding paving of Nine Mile Canyon Road are complex. On one hand, paving the road will reduce dust and vibration that impact cultural resources. It will also make access to the canyon more viable for the recreational user. On the other hand paving is expensive, will likely impact cultural resources during the rebuilding of the road, will increase speed along a road that will still be narrow and tight turns, and will provide increased access to cultural resources with no plan for their protection. The DEIS should have considered these difficult issues and provided information and an alternative that addresses them. Until the DEIS addresses these issues, it will be incomplete and inadequate.  | As discussed in Section 2.1.5.5 (Details Common to all Alternatives), as an alternative to ongoing dust suppression or due to safety considerations, certain road sections may be improved with hard surfacing materials, such as asphalt or chip-seal, or other materials as approved by the BLM or counties as appropriate. The impacts of hardening road surfaces, through means such as paving, are discussed in various resource sections within the EIS. For an example, see Section 4.14.2.4. |
| 1249      | Vegetation      | The EIS should include a BMP that upon completion of new construction, the equipment be cleaned so as to remove any noxious weed seeds.  | Table 2.6.-8 has been modified to include the following mitigation measure: "All construction equipment coming into the WTP Project Area would be power-washed prior to entering the WTP Project Area." Equipment would not be required to be power-washed prior to exiting the WTP Project Area.  |

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| 1250      | Cultural/ Alternatives       | BLM should not require the operators to provide site improvements or enhancements to cultural resources. Instead, that responsibility and the legal risks associated with any such infrastructure additions/improvements should lie with the State and/or local governments.  | As discussed in Section 2.6.1.6 of the DEIS, BLM would "invite" (not require BBC and other operators) to cooperate in a partnership to develop visitor interpretation/ enhancement sites. Within BBC's formal written comments on the DEIS, they have indicated that they are willing to explore such opportunities with the BLM.<br><br>Since that time BBC has committed to fund development/interpretation of 9-11 sites in the WTP Project Area as part of the Programmatic Agreement.  |
| 1251      | Alternatives                 | Requiring or suggesting that funding of any road improvements should be the responsibility of the operators is beyond the scope of NEPA requirements.   | When access involves the use of existing roads that are part of either the BLM or county transportation system, operators must obtain approval and may be required to upgrade the roads, contribute to road maintenance funds, or participate in road maintenance agreements. The surface management agency determines the appropriate road type, and associated road design standards, based on expected traffic volume and other factors. Under Title V of FLPMA, Section 502(c) grants the BLM authority to require operators to "maintain facilities in a satisfactory condition commensurate with the particular use requirements. Such maintenance to be borne by each user shall be proportionate to total use. The Secretary may also require the user(s) of such a facility to reconstruct the same when such reconstruction is determined to be necessary to accommodate such use." Carbon County has an encroachment permit (Ordinance #378) that similarly requires operators to pay for road maintenance in proportion with their use. |
| 1252      | Special Designations         | A buffer zone around WSA boundaries, that would exclude development in order to preserve scenic integrity of the WSA, is unnecessary and unprecedented. Protection measures for WIAs and WSAs must only include the boundaries that were forwarded to Congress by October of 1991, and all valid existing rights must be honored.   | None of the alternatives considered would establish a buffer zone around WSA boundaries.  |
| 1253      | Wildlife                     | There is no data to support a conclusion that an arbitrary 4:1 acre ratio based on long-term projections is necessary or in the best interests of habitat preservation. Research indicates that improving the best and most utilized habitat is more effective. Those decisions should be made on a case-by-case basis, rather than by arbitrary mitigation requirements. | The 4:1 acre ratio included in the EIS was voluntarily included by the operator as part of BBC's Wildlife Mitigation Plan (under the Proposed Action) and was carried over to the Agency Mitigation Plan (under Alternatives C and E). A 4:1 acre mitigation ratio goes above and beyond what is usually volunteered, requested, or required in terms of compensatory mitigation projects on BLM-administered lands.  |
| 1254      | Transportation/ Alternatives | Transportation planning for both the Vernal and Price Field Offices is discussed in the Resource Management Plans. Prior to construction of new roads, an access permit must be obtained from the Utah Department of Transportation (UDOT) for those that are to be used to access an existing State or county road.  | The EIS provides an analysis of the potential impacts associated with these existing roads and the construction of new roads in the WTP Project Area. No matter which alternative is selected, prior to construction, the operators would be required to procure any necessary permits in compliance with all Federal, State, and local law and regulations.  |

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|-----------|-----------------|--|--|
| 1255      | Soils           | On page 4-60, Section 4.4.4.5, Biological Crusts, it is assumed that biological crusts are uniformly distributed throughout the project area. In reality, these crusts should be concentrated in areas where vegetation and geological/soil conditions are conducive to the formation of such crusts rather than uniformly distributed. Putting overall restrictions on development based on an assumption of uniformity is misguided. In addition, potential mitigation or minimization of effects of development within concentrated areas should be possible and made part of any conditions of approval. | The DEIS does not place overall restrictions on development based on the distribution of biological crusts, which is unknown in the WTP Project Area. The presence of biological crusts would be considered during the APD process for individual project facilities.  |
| 1256      | Soils           | Since many of the existing soils (on a gross scale) are considered "poor" for reclamation potential, based on inherent chemical or physical constituents, it is important that proposed locations, including access roads, be evaluated as sources for suitable seedbed material. Adequate material for reclamation can often be found given minimal pre-disturbance evaluations and training of equipment operators to recognize general categories of suitable material, based on position in the project area as well as typical landscapes.  | As stated in Section 2.1.1.1 of the EIS, any suitable topsoil encountered during the construction of project facilities would be stockpiled for later reclamation use.   |
| 1257      | Soils           | Within steep landscapes in the project area, new road placement should be a priority. Often siltation issues can be mitigated with proper placement and stabilization.   | The exact routes of access roads would be determined during the APD process in consideration of minimizing siltation to WTP Project Area streams and other factors, as described in Section 1.4.2 of the DEIS. The Price Field Office RMP, as well as other BLM guidance (Gold Book and 9113 Manual) include guidelines for the construction of roads, including areas with steep slopes such as the WTP Project Area. |



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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
|-----------|-----------------|---|---|
| 1258      | Soils           | It is questionable whether harmonic effects of heavy transportation within narrow canyon bottoms settling alluvial material is an issue and to what extent. If necessary, mobile seismic stations could be placed at selected locations within canyon bottoms, near roadways, seeing heavy equipment traffic during construction. Monitoring would only be necessary during peak periods of the construction cycle. Seasonal effects would be monitored initially and then discontinued as necessary. It is assumed these mobile units would be near the mouths of the canyons and in adjacent alluvial areas. If necessary, equipment could be restricted to number of vehicles and timing to alleviate any recorded seismic activity. Porosity of alluvial material would depend on the geologic source and would vary throughout the project area. The measurement of potential “settling”, on the other hand, would be difficult. | Harmonic effects of heavy transportation are not an issue because there is no reported physical mechanism by which “settling” of alluvium would occur, nor has it been reported for any previous oil and gas activity in the region.  |
| 1259      | Soils           | The number and extent of rock slides as a measure of disturbance effects is difficult. Several factors, including freeze/thaw, play into the stability of soils/rock in steep canyons and although more visible from constructed roads, cannot be blamed on the roads themselves. Wherever possible, road placement selection should take into account any identified rock slide prone areas.   | There are no active rockslide prone areas in the WTP Project Area.  |
| 1260      | Soils           | The use of wood pads for drilling is not a cure-all for minimizing or controlling drilling effects. Wood pad placement itself disturbs a certain portion of the landscape. Proper site selection of well pads and roads to areas that have the highest reclamation potential will alleviate much of the concern. Use of wood pads should be considered only as a last resort.   | The use of wood pads is not proposed for this project under any of the alternatives analyzed in detail. Proper siting of well locations would be taken into consideration during the onsite process.  |
| 1261      | Soils           | The soils listed in the EIS are from loamy and fine-loamy families. The runoff capability varies from low to rapid or high. The steepness of the topography and the extent of silts and fine sands would dictate the level of erosivity. In those steep topography areas, care taken to stabilize the site from an operational standpoint will also minimize runoff and subsequent sedimentation issues off site.   | The applicant has committed to numerous environmental measures (see Table 2.2-6) that would minimize impacts to steep slopes, and implement provisions for erosion and sediment control. Tables 2.6-7 and 2.6-8 include additional BMPs and environmental protection and mitigation measures that would be applied to slopes greater than 30 percent. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 1262      | Vegetation      | Full site pre-disturbance surveys during the appropriate flowering periods and within suitable habitat should alleviate concern for disturbance of individual Uinta Basin hookless cactus and Graham's beardtongue, as well as any other sensitive plants. Surveys should be habitat specific.   | Conservation measures jointly developed by the USFWS and BLM to protect the Uinta Basin hookless cactus and Graham's beardtongue are included in Table 2.6-8 and would be implemented under Alternatives C, D, and E. These measures include (among other salient protective mitigations) requirements for pre-surface disturbance surveys within suitable habitat, and measures to avoid direct disturbance and minimize indirect impacts to suitable habitat, occupied habitat, populations, and individual plants.   |
| 1263      | Vegetation      | Control of runoff from roads, especially on steep topography, is essential for the long-term stability of such roads. Based on BLM recommendations, existing roads will be upgraded, if necessary. Runoff control measures on upgraded roads will significantly reduce the potential for offsite effects of road chemicals, including EPA approved dust suppressants, on vegetation. | Table 2.6-7 includes several BMPs designed to limit or minimize erosion, runoff, and sediment yield. Table 2.6-8 includes numerous mitigation measures designed to further reduce erosion, runoff, and sediment yield. These BMPs and mitigation measures would be required under Alternatives C, D, and E.   |
| 1264      | Vegetation      | In potential habitat for Uinta Basin hookless cactus and during its flowering period, water only may be used as a dust suppressant to reduce any potential effects on that USFWS-listed species.   | Appropriate methodologies and materials for dust abatement within potential, suitable, and/or occupied Uinta Basin hookless cactus habitat would be determined jointly by the BLM and USFWS on a site-specific basis.   |
| 1265      | Vegetation      | Proposed BLM mitigation measures to reduce noxious weeds will significantly reduce introduction of new individuals and populations, as well as reduction of existing population sources for noxious weeds.   | The BLM agrees with the commenter.  |
| 1266      | Vegetation      | Mapping weed-infested areas, especially on proposed sites, will assist in outlining necessary BMPs associated with that site. Minimizing disturbance, timely revegetation, and potential equipment washing may be possibilities for reducing the spread of weeds to other areas from highly, currently impacted areas.   | See responses to comments #152, #954, and #1249. In addition, see Appendix C, which describes requirements for surface disturbance thresholds under Alternatives C, D, and E. Specifically, under these alternatives, limits would be placed on the amount of unreclaimed surface disturbance allowed at any given time. The surface disturbance thresholds established in the EIS include the total amount of surface disturbance that would be allowed at any one time, and are based upon total past, present, and proposed oil and gas development in the WTP Project Area. The goal of establishing surface disturbance thresholds is to ensure successful interim reclamation is achieved, and to mitigate impacts to vegetation, soil, and water resources by re-establishing a vegetation community as soon as practical. |
| 1267      | Vegetation      | Information on reclamation practices and methods to outline reclamation success in semi-arid and arid environments is available from a variety of sources and should be applicable to portions of the project area, if not all of the project area.  | See responses to comments #1266 and #551. Reclamation would be conducted in accordance with the Green River District Reclamation Guidelines. As discussed in Section 2.1.4 of the EIS, seed mixtures for reclaimed areas would be site-specific and would require approval by the BLM or UDOGM, as appropriate. Interim vegetation reclamation would be considered successful when 70 percent of pre-disturbance plant density, by desirable ground cover/understory species, is reestablished over the entire reclaimed area. This metric would require monitoring to determine compliance and success. Reclamation success would be monitored by comparing the plant density of the reclaimed area with the undisturbed ground cover/understory plant density in adjacent areas.  |
| 1268      | Vegetation      | On-going reclamation and monitoring, based on potential disturbance caps, will assist in providing a framework of determining success while reducing the cumulative effects of disturbed acreage.  | Under Alternatives C, D, and E, annual and maximum allowable disturbance thresholds are intended to ensure that developed areas are restored in a short-period of time.   |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response   |
|-----------|----------------------|--|--|
| 1269      | Vegetation           | To evaluate reclamation potential and methodologies for new sites, an evaluation of existing well pads and their current relative reclamation success could be undertaken. Gleaned information within native sites adjacent to existing sites, and comparable to proposed sites, may be used as a planning tool for new disturbance and reclamation.   | The suggested language has been added to Section 2.1.4 of the FEIS.  |
| 1270      | Alternatives         | At this point, I would like to point out two areas of concern from the BBC standpoint regarding operations post EIS. These are the requirement that all pipelines be buried and the corollary that no trucking of produced fluids be allowed on the mesas. These two items should be addressed together. If trucking is not allowed on the mesa tops, then transporting of all fluids (gas, liquids and water) will have to be accomplished through piping. First off, this is very impractical considering the relatively small amount of fluids produced at West Tavaputs. Secondly, if all new pipelines are required to be buried, including pipe to existing wells and multi-well pads, then the amount of potential surface disturbance will grow exponentially when compared to surface-laid lines and trucking. I will not go into specific amounts here, but the numbers put forth in the document bear this out. Also, the potential for follow-up surface damages at project's end, when pipe may be salvaged, needs to be addressed. With the price of steel continuing to climb, the possibility of someone wanting to salvage buried pipe is high and would only lead to another round of damaged surface compared to surface-laid pipe. | See responses to comments #83 and #93.   |
| 1271      | Special Designations | Once wells are developed within the Desolation Canyon or Jack Canyon WSAs, or any WIA, even if reclaimed, they will lose their eligibility for future consideration as designated wilderness.  | <p>As stated in Section 4.17.1.2, if the Proposed Action were implemented, the BLM would not be able to meet the objectives of the IMP "to preserve the wilderness character of the WSAs until Congress determines whether or not they should be designated as wilderness." However, given adequate time (approximately 30-50 years), lands would be expected to regain wilderness characteristics.</p> <p>In addition, it should be noted that fragmentation analyses were conducted for each alternative to show all areas that could potentially lose their wilderness characteristics. The analyses (see Sections 4.17) indicate that only portions of these areas (predominately those areas within the Peter's Point Federal oil and gas unit) would lose their wilderness characteristics, leaving large portions of the WSAs unimpaired.</p> |

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| Comment # | Topic/ Resource                        | Public Comment   | BLM Response   |
|-----------|--|--|--|
| 1272      | Alternatives/ NEPA                     | What provisions are there in the proposed leasing arrangement that will specifically fund BLM's ability to monitor and enforce stipulations and mitigations in the area? Approximately 800 wells, and the resulting truck traffic, will require an increase in staffing. The analysis will be deficient without a direct link from the proposed activity to the ability to monitor and enforce.  | Instruction Memorandum No. 2008-012 contains information on the BLM's current Oil and Gas Inspection and Enforcement (I&E) Strategy. In general, Field Office staffing resources are determined through maintenance of an Inspection Strategy Matrix and resources are allocated based on inspection workloads. Therefore, it can be expected that if full field development is allowed to occur, appropriate resources would be available to enforce stipulations and mitigation in the area.   |
| 1273      | Alternatives/ Cultural/ Transportation | Are the provisions to mitigate sufficient enough to protect rock art sites from dust and vibration? Road improvements and dust control stipulations need to be specific to vulnerable sites. That implies a section-by-section analysis for all roads in the area.   | <p>See responses to comments #217, and #651, and #1240.</p> <p>As shown on Figure 4.12-1 (Relationship of Known Sites to Existing Access Roads), the majority of cultural sites are distributed throughout Nine Mile Canyon and its side canyons in close proximity to the road, implying that mitigation is needed throughout the entire APE, not just particular sections.</p> <p>The impacts of vibration resulting from increased traffic in Nine Mile Canyon are discussed in Section 4.12.1.2. According to the analysis, "the potential for traffic-induced vibration resulting in the collapse of a rock art panel or standing architecture is seemingly low."</p> |
| 1274      | Recreation                             | Formal and informal historic camping areas need to be managed and preserved. An active well drilling area in a remote environment brings pressures for informal use of RV's and campers. And, drilling companies often rely on a multitude of sub-contractors to perform well-related services. What are the enforceable stipulations that will be applied to the primary leasing companies and all of their subcontractors about where employees can live? How will the BLM enforce those stipulations? Will employees force tourists out of the area by pre-empting all of the sites? Will there be designated areas for tourists, with amenities, provided as mitigation for the demands the industry and their employees will place on the area? | There are no developed campgrounds within the Project Area. Under Alternatives A, B, C, and E, BBC and other operators would construct up to three temporary worker housing locations for persons employed within the WTP Project Area. Employees and sub-contractors planning to stay within the WTP Project Area would be required to utilize these facilities, as is discussed in Section 2.1.9.1. In addition, on well pads where active drilling and completion is occurring, temporary housing would be provided for the well pad supervisor, geologist, tool pusher, and other required to stay on location at all times.   |
| 1275      | Cultural                               | What is the current status for inventorying all of the area for prehistoric sites? Is that ongoing process going to have priority, and will leasing stipulations explicitly allow for site exploration and a review of maintaining site integrity by BLM and outside agencies?   | See responses to comments #1228 and #913.  |

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| Comment # | Topic/ Resource     | Public Comment   | BLM Response  |
|-----------|---------------------|--|---|
| 1276      | Recreation/ General | To what extent has the Price Field Office honestly integrated the analysis of its own Recreation and Historical staff into the wider impact analysis? And, are the values of maintaining the important wilderness characteristics of Desolation and other canyons enforced though noise, dust, glare, visual intrusion, and other enforceable standards?   | A list of BLM preparers including cultural and recreational resource specialists is included in Chapter 7 of the EIS. Mitigation measures for specific resources contained in Section 2.6-8 have been developed by the BLM IDT to reduce the impacts of development on various resources and resource values.   |
| 1277      | Alternatives        | Has the BLM considered a finite 'bank' of allowable disturbed lands for access roads and well pads, not to be exceeded, unless and until previously-disturbed lands are restored, reclaimed, and reseeded?   | Alternatives C, D, and E establish maximum allowable and annual disturbance thresholds. For details see Appendix C.   |
| 1278      | NEPA                | To assist in monitoring and enforcement, and to minimize the unnecessary duplication of pipelines, compressor stations, and servicing traffic, has the BLM considered a unitized field - and will that be made a part of a leasing framework?  | The WTP Project Area includes two Federal Oil and Gas Units (i.e., Prickly Pear and Peter's Point Units). While development is proposed on unleased lands within the WTP Project Area, the ROD on this EIS will not include a decision to lease any specific parcel. Leasing decisions, including the decision unitize a field, would be made in a separate decision document.  |
| 1279      | Alternatives        | Will there be required training for all contractor and sub-contractor employees on the importance of historic and environmental concerns in the area, to cover elements like the treatment of rock art and habitation sites, siltation and runoff and stream and drainage crossings, erosion control, fire control and firewood collecting, weed incursion, spill reporting, animal control, firearms restrictions, wildlife and wild horse concerns, and honoring private property? | As part of the Programmatic Agreement BBC has agreed to provide training to all employees and contractors working in the WTP Project Area. This training will include information on laws intended to protect archaeological resources and leave no trace ethics. A list of additional applicant-committed environmental protection measures can be found in Table 2.2-6.       |
| 1280      | Alternatives        | If remote construction work force housing sites are to be allowed, has the BLM worked with the respective counties on permitting requirements for safety standards and inspections for health and safety issues like water provision, sewage disposal, power connections, drainage and erosion control, trash collection, fire suppression, emergency medical attention, access road standards, reclamation, and restoration?  | The EIS provides an analysis of the potential impacts associated with the development of workforce housing in the WTP Project Area. If the BLM approves an alternative that includes workforce housing locations, prior to construction, the operators would be required to procure any necessary permits in compliance with all Federal, State, and local law and regulations. |
| 1281      | Socioeconomics      | This leasing proposal needs to be looked at in terms of cumulative impacts from all leasing in the larger region, and the carrying capacity of the local communities and infrastructure to accommodate it.   | The Proposed Action is a full field development plan and not a leasing proposal. No leasing decisions will be made as part of the ROD for this project.<br><br>Cumulative impacts on local communities, including facilities and services, are discussed in Sections 5.13.2 -5.13.4.  |

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| Comment # | Topic/ Resource                | Public Comment   | BLM Response   |
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| 1282      | Cultural                       | The current proposed plan (DEIS pg 2-66) does not provide a workable system for determining location and protection of sites through consultation with knowledgeable rock art specialists.   | See response to comment #3 and #35.  |
| 1283      | Cultural                       | Written status should be given to sites which requires specific plans for access and extraction before any permits can be issued, monitoring by experts familiar with the sites with frequent reporting should be done as extractions progresses, and deviation from agreed upon plans should result in halting of the operation until corrections are made.             | See response to comment #35. The individual APD and ROW permitting processes incorporate measures for protecting, documenting, and mitigating cultural resources impacts in compliance with the Section 106 process, applicable State law, and numerous Federal and State regulations. Appendix N (Preconstruction Cultural Resource Identification Plan) outlines the procedures for identification, evaluation, management, monitoring, and mitigation (if necessary) of cultural resources within the WTP Project Area for each disturbance.  |
| 1284      | Alternatives                   | The BLM must consider an alternative access road to the development area.  | See response to comment #34.   |
| 1285      | Cultural                       | More monitoring is needed to measure the effects of the dust and the dust control chemicals being used.  | See responses to comments #3 and #35.  |
| 1286      | Cultural                       | There is a lack of archaeological surveys in this large affected area. The cultural resources in this area need to be surveyed.  | See responses to comments #1228 and #913.  |
| 1287      | Special Designations/ Wildlife | Not all wilderness resource and wildlife surveys and studies have been completed, and the adverse impacts to these critical resources by gas drilling have not been considered.  | See response to comment #986.  |
| 1288      | Water                          | Every alternative being considered is deficient in explaining how toxic material, either through liquid spill, airborne contamination or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river.  | See the response to comment #988.  |
| 1289      | Special Designations           | All the draft alternatives improperly infringe on the Green River WSR corridor and the Desolation Canyon WSA. In addition, every one of the draft alternatives improperly infringes on the Jack Canyon WSA.  | Development within the Green River WSR corridor, which extends 1/4-mile on either side of the river, would not be allowed under any of the alternatives analyzed in the EIS. In addition, the range of alternatives considered in the EIS includes the Conservation and No Action Alternatives, both of which preclude development in the Jack and Desolation Canyon WSAs.   |
| 1290      | Alternatives                   | In the high desert where vehicle tracks remain visible upwards of 20 years, the idea that disturbed soil can simply be graded and reseeded to "reclaim" the original vegetation, without irrigation or any means of restoring cryptobiotic crust in 5 years, is ridiculous; full reclamation will probably be 20-30 years beyond the proposed 20-year life of the wells. | <p>The EIS recognizes that the loss of biological soil crusts would be an irreversible impact (see Section 4.4.1.5, and definition of irreversible in Section 4.1). As discussed in Appendix C, "Based on the climatic conditions of the WTP Project Area, it was determined that successful reclamation could be reasonably expected to occur within a period of 5 years." As discussed in Section 2.1.4, "reclamation would be considered successful when 70 percent of the pre-disturbance plant density, by desirable ground cover/understory species, is established over the entire reclaimed area."</p> <p>It is not to be implied that successful reclamation is equivalent with the re-establishment of the natural character of the area, which as discussed elsewhere in the document could take approximately 50 years (See Section 4.17.1.3).</p> |

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|-----------|---------------------------------|---|--|
| 1291      | Alternatives                    | The BLM must present an alternative in which there is no drilling, road building, or other surface disturbance beyond the existing roads and wells already present, thereby protecting whatever wilderness is left.   | See response to comment #1539.   |
| 1292      | Special Designation             | All of the existing alternatives in the DEIS need to remove any well sites, road construction, or other surface disturbances proposed with the Jack Canyon WSA and the Desolation Canyon Wild and Scenic River Study Area, so that those areas remain fully eligible for wilderness designation.  | No development is proposed with the Jack or Desolation Canyon WSAs, or the Green River WSR, under Alternative D. The ROD will provide a rationale as to why an alternative was or was not selected, including considerations regarding BLM's authority, rights' of operators, environmental impacts, and other relevant factors. |
| 1293      | Visual                          | All of the current alternatives the BLM is proposing would create obvious manmade disturbances visible from the river.  | See response to comment #139.  |
| 1294      | Water                           | The entire WTP drains to the Green River. The EIS contains no adequate means of containing all of the toxic wastewater generated by the drilling from seeping or accidentally being spilled into areas that will eventually drain into the Green River (15 acres of storage ponds are proposed, but those can leak; trucking the water out is proposed, but truck have accidents and can also leak; putting the water in SWD wells is proposed, but "the feasibility of drilling SWD wells in the WTP Project Area is not known at this time.") | Produced water would be handled by a variety of methods. See the responses to comments #516, and #1201. The SPCC Plan would detail the reporting and cleanup procedures that would be used in the case of a spill or leak of produced water.   |
| 1295      | Special Designations            | The drilling envelope infringes on the Desolation Canyon Wild and Scenic River study area and the Jack Canyon WSAs.   | See response to comment #1289.   |
| 1296      | Recreation/ Special Designation | The plan fails to take into account the effect of the drilling operations on the roughly 6,000 river runners, who enjoy the impacted stretch of river. The Wild and Scenic designation recognizes the value of this region for all Americans. It is extremely short-sighted to renege on the promise to keep this area truly wild and scenic.   | See response to comment #119.  |
| 1297      | Water                           | The EIS does not contain plans to contain toxic spills from the drilling sites.   | See response to comment #147.  |
| 1298      | Erosion                         | The EIS does not include plans to mitigate the increased erosion from the road building operations.   | Table 2.2.6 contains applicant committed environmental protection measures that would reduce erosion under the Proposed Action. Table 2.6-7 contains BMPs that would reduce the impacts of erosion from construction activities under Alternatives C, D, and E.  |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response   |
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| 1299      | Cultural/ Recreation | The EIS should recognize that recreational traffic contributes to the dust problems in Nine Mile Canyon.   | The EIS currently recognizes that all traffic in the WTP Project Area contributes to dust generation (See Section 3.14). However, it should be noted that baseline traffic studies conducted for this EIS show that the majority of the current traffic in Nine Mile Canyon is industrial traffic. |
| 1300      | Alternatives         | The EIS should evaluate the negative and positive aspects of paving Nine Mile Canyon Road.   | See response to comment #1248.   |
| 1301      | Socioeconomics       | West Tavaputs is one of the largest natural gas discoveries in Utah, as well as the Rocky Mountain region, in the past decade. Its fiscal impact today, and more importantly over the coming years, is not only critical to Utah's economy, but is a key resource for growing U.S. demand of clean burning, environmentally friendly natural gas. Discoveries are rare, and given that U.S. demand is outpacing supply growth, we can't ignore or waste the potential of such a large and vital domestic resource such as West Tavaputs. | BBC and other operators' anticipated natural gas production estimates are discussed within the EIS in several sections, including Sections 2.2, 4.2, and 4.13. Potential fiscal impacts of the Proposed Action and alternatives are discussed in Section 4.13.                                     |
| 1302      | Socioeconomics       | Conservatively, this asset has the potential to grow from currently close to 100 mmcf per day to over 250 mmcf per day, which translates at today's gas prices, to approximately \$45 to \$60 million of State revenues annually.  | Potential State revenues from the Proposed Action and alternatives are discussed in Section 4.13   |
| 1303      | Socioeconomics       | Locally, when looking at direct and indirect services, it clearly has a positive impact on literally hundreds of jobs within Utah.   | Impacts on local employment from the Proposed Action and alternatives is considered in Section 4.13.   |
| 1304      | Alternatives         | Environmental mitigation under the scope of the EIS and particularly under BBC's guidance is progressive and innovative. BBC's approach to linking operations and mitigation could be used as a model for further development projects within and outside of Utah.   | The analysis of the Proposed Action is based on the application of BBC-committed mitigation measures.  |
| 1305      | Wildlife Mitigation  | Based on BBC's past actions and forward looking operations under Alternative A, the wildlife mitigation measures are comprehensive, progressive, and promotes improvement beyond the environment condition prior to BBC's involvement. BBC's goal and reputation is a "no-net-impact" approach to wildlife.  | BBC's Wildlife Mitigation Plan is included in the description of the Proposed Action. The plan would mitigate impacts, but there would be residual impacts as described in Sections 4.9 and 4.10.  |



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| Comment # | Topic/ Resource            | Public Comment   | BLM Response   |
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| 1306      | General/<br>Socioeconomics | BBC's reputation and integrity will provide for a project, which not only enhances and provides for more positive socio-economic conditions in Utah by facilitating Alternative E, but will provide an important step forward in establishing one of the most comprehensive environmental mitigation plans in Utah and the Rockies.  | BMPs and environmental protection measures are described in Chapter 2 of the EIS (see Tables 2.6-7 and 2.6-8) and considered in the analysis of the environmental consequences in Chapters 4 and 5. Socioeconomic impacts of the Proposed Action and alternatives are analyzed in Sections 4.13 and 5.13 of the EIS.                       |
| 1307      | Cultural                   | The existing mitigation and discovery plan for the 38 Well EA has been entirely ineffectual, insufficient, and a failure in dealing with the dust in the canyon as a result of industrial traffic. It has also been a total failure in addressing damage to archaeological sites. There has to be a better plan for dealing with "unanticipated discoveries" and outright ARPA violations. No charges have been brought against the operators, although they knowingly damaged sites. That is an ARPA violation and needs to have charges filed. The DEIS, as currently written, does not propose a better plan; the DEIS needs to be withdrawn until a better mitigation and discovery plan for cultural resources can be written (including a section for ARPA violations), and the public given an opportunity to help develop and comment on it. | The existing mitigation and discovery plan for the 38 Well EA provided a process and protocol for testing of two sites along existing access roads, as detailed in Section 4.12.1.1. It should also be noted that dust was not addressed within the framework of this plan. Also see responses to comments #3, #8, #971, #1091, and #1313. |
| 1308      | Cultural                   | 36 CFR 800.36 CFR 800.3(e) and (f) requires the Federal agency to involve the public and identify interested parties as consulting parties to participate in this process.<br><br>36 CFR 800.3(g) allows for multiple steps to be addressed at one time, but the agency is required to make sure there is an adequate opportunity to express views. None of these steps are addressed in the DEIS, and so there is no opportunity to comment on them.  | See responses to comments #8, and #10.   |
| 1309      | Cultural                   | 36 CFR 800.4(a) requires participation in determining the APEs. This is not addressed in the DEIS.   | See responses to comments #8 and #700.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
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| 1310      | Cultural        | 36 CFR 800.4(2) requires consultation on historic properties that have not been yet identified. This has not been addressed with regard to: The Nine Mile Canyon Archaeological District, the Nine Mile Canyon Historic District, The Nine Mile Archaeological Landscape, and The Nine Mile Canyon Historical Landscape. | See response to comment #8. When the EIS was initiated, the nomination form for the NMCAD did not exist. However, in 2009, the NMCAD was determined by BLM and the Utah SHPO to be eligible for the National Register of Historic Places based upon a nomination developed by the CPAA, which was submitted on February 7, 2008. Since that time, the BLM has prepared cover documentation in support of an MPS for Nine Mile Canyon including historic, rock art, and West Tavaputs Adaptation contexts. Using these MPS contexts, 63 sites in Nine Mile Canyon, were listed on the National Register of Historic Places on November 30, 2009. The BLM has committed to prepare and submit 100 recorded individual sites on BLM lands annually over the next 5 years. The impact of proposed development on eligible and listed sites is discussed in Section 4.12 of the FEIS. Impacts to eligible or listed sites are evaluated in Section 4.12 of the FEIS.  |
| 1311      | Cultural        | 36 CFR 800.4(3) requires consultation on issues related to potential effects. This has not been addressed in the DEIS.   | Based on the impact analysis contained within the DEIS, the final results of the Dust Study (Appendix G), and comments received during the public comment period (Appendix S), in December of 2008 the BLM determined, in consultation with SHPO and the ACHP, that implementation of the Proposed Action or Alternatives could have an "Adverse Effect" on historic properties within the WTP APE. The initial determination of "Adverse Effect" was limited to the potential for dust generated by industrial traffic to settle on and effect the visual appearance of the rock art panels pursuant to 36 CFR 800.5 (a) (2) (v). However, during development of the WTP PA, the BLM determined with consulting parties that there are also potential "Adverse Effects" to the cultural setting within Nine Mile Canyon and indirect impacts to sites over the entire WTP APE. The BLM revised its "Adverse Effects" determination in a letter to the SHPO, ACHP, and consulting parties dated July 7, 2009. A copy of the revised effects determination letter can be found in Appendix T- WTP PA. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response  |
|-----------|-----------------|---|---|
| 1312      | Cultural        | 36 CFR 800.4(b) requires consultation on historic properties. Sites located along access routes have not been identified. Neither have any of the eligible Districts been identified in the DEIS. | <p>See response to comment #1310. As part of the WTP PA process, the Class I inventory was amended to include the expanded APE, which is referenced in previous RTCs and in Section 3.12. Impacts to known eligible sites are addressed under the discussion of each alternative within Section 4.12. Given the number, size, distribution, and extent, previous cultural resource inventories provide a valid means of evaluating culturally-sensitive areas within the revised APE. Appendix O lists the previously completed cultural resource surveys within the APE. Figure 3.12-1 illustrates the previously completed cultural resource survey areas within the APE. With the exception of the Horse Bench area, most of the proposed development would occur in areas that have received considerable scrutiny from cultural resource inventories. These inventories consist of linear corridors surveyed for ROWs and seismic lines, individual well pads, all roads leading up to the WTP, the majority of the Nine Mile Canyon Road in the APE, large portions of the major canyon rims, and at least one large block. Taken collectively, these surveys have resulted in a fairly systematic examination of the APE, resulting in sufficient site data for identifying culturally-sensitive areas. As shown in Figure 3.12-1, the previously inventoried areas can be construed as representative of significant portions of the WTP Project Area.</p> <p>Under the Agency Preferred Alternative and the WTP PA (Appendix T), BBC would be required to fund a Class II inventory not to exceed 3,700 acres to better determine the extent of cultural resources within the APE. A Class II inventory is most useful for improving cultural resource information in large areas where previously conducted cultural resource surveys are insufficient and information is lacking. During development of the Class II cultural resource survey a committee recommended by the Concurring Parties and approved by the BLM will determine what areas will be surveyed including intuitive survey areas.</p> <p>Since completion of the WTP DEIS, the BLM has prepared cover documentation in support of a Multiple Property Submission (MPS) for Nine Mile Canyon including historic, rock art, and West Tavaputs Adaptation contexts. Using these MPS contexts, 63 sites in Nine Mile Canyon, were listed on the National Register of Historic Places on November 30, 2009. The BLM has committed to prepare and submit 100 recorded individual sites on BLM lands annually over the next 5 years. The impact of proposed development on eligible and listed sites is discussed in Section 4.12 of the FEIS.</p> |
| 1313      | Cultural        | 36 CFR 800.4(c) requires consultation on historic significance. This has not been identified in the DEIS, especially in reference to sites and Districts mentioned above.                         | See response to comment #8, which documents the conclusion of consultation under Section 106 of the NHPA. In addition, under all alternatives, the configuration of well locations, associated access roads and pipelines, and ancillary facilities results in potential conflicts with known cultural resources. For each of the alternatives, a table has been developed to disclose potential conflicts with resources that have been previously determined as eligible for inclusion in the NRHP (for example, see Table 4.12-1). Eligible properties must either be avoided or impacts to the resource must be otherwise mitigated. Avoidance and other mitigation recommendations are presented in Appendix N. Based on adherence to the guidelines and procedures in Appendix N, and the track record of site avoidance in previous gas production within the WTP Project Area, the potential for direct impacts to cultural resources is relatively low.  |
| 1314      | Cultural        | 36 CFR 800.4(d) requires consultation on the results of identification and evaluations. This is not identified in the DEIS.   | See response to comments #8, #1312, and #1313.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 1315      | Cultural        | 36 CFR 800.5 requires consultation on assessment of effects. This requires identification of any characteristics that qualify as a historic property for the National Register. This is not addressed in the DEIS.            | See responses to comments #6 and #8.   |
| 1316      | Cultural        | The DEIS should be withdrawn until additional information is included in a supplemental draft and again submitted to the public for comment. The public cannot comment on this information if it is not included in the DEIS. | This EIS has included a thorough and ongoing public participation process that demonstrates the BLM's compliance, in both the spirit and intent. The inclusion of new information does not always compel an agency to prepare a supplemental EIS. To require a supplemental EIS every time new information comes to light would render agency decision-making intractable, always awaiting updated information only to find the new information outdated by the time a decision is made. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response   |
|-----------|-----------------|--|--|
| 1317      | Cultural        | None of the alternatives or the transportation plan addresses any substantive plans for dealing with the dust problems in Nine Mile Canyon. The public demands to see a plan for real mitigation and to have an opportunity to comment on such a plan. | <p>In an effort to better understand the effects of dust and dust suppression chemicals (magnesium chloride) on rock art, BBC voluntarily agreed to fund the Dust Study that is included in the EIS as Appendix G. One of the objectives of the Dust Study was to research precedents, if any, for scientific studies of the effects of dust on rock art. The literature search confirmed that there is no project that sets a precedent or provides an exact model for a dust study in Nine Mile Canyon. Therefore, the Dust Study conducted for this EIS is pioneering research. As part of the WTP PA BBC has committed to conduct additional research which will investigate the potential impacts of dust on historic properties. Specifically, the study will investigate what constituents are present in various dust samples taken from rock art panels and whether the dust is causing physical degradation of the rock art (see Appendix T, Stipulation (B)(ii)).</p> <p>In accordance with CEQ regulations (CFR 1502.22), the EIS has been revised to clearly disclose that the impacts of vehicle exhaust and vibration on cultural resources within the WTP Project Area are currently unknown. In the absence of site-specific data, the best available information has been used to predict the impacts of vibration on cultural resources which could occur under the Proposed Action (see Section 4.12.1.2). Similar discussions can be found in each of the corresponding alternative-specific impact analyses. Implementation of the cultural resources monitoring plan under the WTP PA (Appendix T) will allow the BLM to monitor vibrations and vehicle emissions, and gather additional baseline information about cultural resources within the APE.</p> <p>Thus, the Dust Study (Appendix G) provides a representative sample of baseline site conditions from which the spatial extent of the dust problem can be generally understood. This is especially true given that the majority of the cultural sites is distributed throughout Nine Mile Canyon and its side canyons in close proximity to the road, and would be subject to the same impacts both in terms of context and intensity as those that were evaluated as part of the field sampling completed for the dust study. In addition, under Alternative E and as part of the WTP PA, BBC has committed to conduct additional research which will investigate the potential impacts of dust on historic properties. Specifically, the study will investigate what constituents are present in various dust samples taken from rock art panels and whether the dust is causing physical degradation of the rock art (see Appendix T, Stipulation (B)(ii)).</p> <p>Under Alternative E as part of the WTP PA, the BLM would require the operator's to comply with a long-term Cultural Resources Monitoring Plan as part of the WT PA (Appendix T). This monitoring plan would allow the BLM to monitor the direct, indirect, and cumulative impacts of full field development on specified cultural resources. As part of the monitoring plan, BBC and other operators would be required to continue dust sampling at sites evaluated in the dust study. The effects of this long-term monitoring plan are considered under the Agency Preferred Alternative. In addition, under Alternative E and the WTP PA (Appendix T), enhanced dust suppression with alternative suppressants would be required throughout the revised APE, which is larger in size than the Project Area. In addition, under the WTP PA BBC has agreed to fund conservation treatments, which would include developing systems for removing dust from panels that have been affected by past oil and gas development that will be tested by a rock art conservator selected by the BLM. Finally, Appendix D outlines the BLM's Mitigation Compliance and Monitoring Plan for the project, under which the agency and operators would be required to monitor not only the implementation of mitigation measures but the effectiveness of mitigation measures required as part of the EIS. The effectiveness monitoring would include the mitigation developed for cultural resources.</p> |

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| Comment # | Topic/ Resource                              | Public Comment   | BLM Response   |
|-----------|--|--|--|
| 1318      | Cultural                                     | Eliminating alternative transportation routes out of hand is a serious weakness of the DEIS. The DEIS should be withdrawn until the BLM and BBC can hire a professional road engineer to assess all the possible alternative routes into the canyon.   | See response to comment #34.   |
| 1319      | Cultural/ Alternatives                       | Flying workers up to the plateau is not going to have enough of a beneficial impact on eliminating dust in the canyon.   | Use of aerial transportation is one of many transportation impact reduction measures contained in Alternative C that would reduce industrial traffic. The anticipated benefits of using aerial transportation are quantified in Section 2.4.11.2.  |
| 1320      | Alternatives/<br>Transportation/<br>Cultural | The Nine Mile Canyon Coalition and its partners asked for an extension of the comment period and offered to pay for an engineering study of alternative routes, but they have not received a reply from the BLM. Now BLM should take the responsible action to withdraw the DEIS and have the engineering study done.  | See response to comment #34.   |
| 1321      | Dust Study                                   | A serious flaw in the DEIS is the failure by BLM to include the final dust study by Constance Silvers. The draft included in the DEIS states that it is a draft and that the final study was going to be finished before the end of October 2007. That was plenty of time for the BLM to include it in the DEIS.   | See response to comment #53.   |
| 1322      | Alternatives/ Dust Study                     | BLM and BBC have had four years to study the effects of dust on the rock art and to develop an effective mitigation plan for keeping the dust levels low. This hasn't been done yet, and the public cannot possibly be asked to trust BLM and BBC to do the right thing by allowing them to continue status quo operations without a detailed mitigation plan in place. Promising to hold meetings with the counties and consulting with BBC on possible measures is not a measurable mitigation plan. | See responses to comments#3, #35, #651, and #971.  |
| 1323      | Wildlife                                     | It has been brought to BLM biologist's attention that there is a rare race of Swallowtail butterflies on the West Tavaputs. They live on a plant that is impacted by road, pipeline, and well pad construction. The WTP EIS should be withdrawn until studies can be done to determine the impact of the Proposed Action on this particular butterfly population.  | The Swallowtail butterfly is not included on any State or Federal special status species lists. Therefore, this species is not explicitly addressed within the EIS. Impacts to the Swallowtail butterfly are implicitly addressed within the general wildlife sections (see Sections 3.9.1, 4.9, and 5.9). |
| 1325      | Alternatives                                 | The EIS should contain an alternative that considers paving Nine Mile Canyon Road.   | See response to comment #1248.   |

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| Comment # | Topic/ Resource              | Public Comment   | BLM Response   |
|-----------|------------------------------|--|--|
| 1326      | Alternatives/ Transportation | The EIS needs to disclose how traffic speeds will be controlled/ enforced.   | See response to comment #945.  |
| 1327      | Alternatives                 | The EIS should contain an alternative that considers paving Nine Mile Canyon Road.   | See response to comment #1248.   |
| 1328      | Alternatives                 | The EIS should contain an alternative that considers paving Nine Mile Canyon Road.   | See response to comment #1248.   |
| 1329      | Alternatives/ Socioeconomics | Economics should not be used as a determining factor when the BLM is considering whether to consider alternative transportation routes.  | Section 2.8.6 provides the BLM's rationale for eliminating alternative access routes from detailed analysis. Economic factors were not the primary consideration. In addition, the BLM has analyzed construction and use of a new route through Trail Canyon within the FEIS (see Section 2.4).  |
| 1330      | Alternatives                 | The BLM should consider requiring that alternative routes be used other than through the bottom of Nine Mile Canyon.   | See response to comment #34.   |
| 1331      | Alternatives                 | The EIS should contain an alternative that considers paving Nine Mile Canyon Road.   | See response to comment #1248.   |
| 1332      | Alternatives/ Socioeconomics | Any housing at the well pad or on any BLM lands should be in compliance with other camping regulations. Thus, if the BLM has a 14-day camping limit, the campers at well pads should comply with that regulation. Any occupation by individuals on or near the well pad beyond the camping limit should be considered a rental unit. As such, the Price Field Office should charge each unit (camper) the going campground rental rate. In the Vernal area at this time, the rate is approximately \$850.00 with full hook ups and around \$500.00 with no hook ups. The Price BLM will have to conduct a local rate study to determine the rates charged in both counties affected. In addition, those rental units will need to be in compliance with local, county, and State building and health regulations that require water testing, concrete pads or foundations, garbage pick-up, waste/sewer percolation tests, and/or leach field construction, etc. | As an administrative function for approved oil and gas activities, rather than a recreational function, some members of the drilling workforce would be required to remain on location throughout the drilling and completion phases, which would take far longer than 14 days. In addition, the BLM does not concur with this measure because the utilization of worker housing reduces vehicle use, which has the potential to reduce impacts to a number of resources.  |
| 1334a     | Alternatives/ Cultural       | Prior to stopping or limiting development on the basis of impacts to cultural resources (dust impacts), the BLM must demonstrate using sound science and peer-reviewed literature that such impacts will occur. There have been no such studies released to date.  | As discussed in the Appendix G (Dust Study), a literature search confirmed that there is no project that sets a precedent or provides an exact model for a dust study in Nine Mile Canyon. However, laboratory analysis, in combination with visual observations, confirms that the combination of raw road surfaces and heavy vehicle traffic produces large plumes of fine dust that settle on adjacent rock art. The BLM has taken steps within the FEIS to minimize the generation of dust on Nine Mile Canyon Road (see Appendix R). In addition, as part of the programmatic agreement, BBC has agreed to fund additional research to further examine the impacts of dust on rock art. |

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| 1334b     | Alternatives                            | Representatives of Bill Barrett at the March scoping meeting seemed to believe that future technology may allow them to access the resources under Jack Canyon via directional drilling at some point in the future. It is a mistake to push development at this time with expensive road building down Jack Canyon. Jack Canyon well pads should be eliminated because this resource may, in the future, be accessed from other well pads.   | Under the Agency Preferred Alternative, there would be no surface occupancy in Jack Canyon unless surface restriction would prohibit BBC from accessing their valid and existing rights. Phase II of the directional drilling report specifically looks at the technical feasibility of accessing reserves in Jack Canyon from the canyon rim given current technology limitations. The findings of the alternative have been incorporated into the Agency Preferred Alternative. Under Alternative E, it is assumed that the number of well pads within Jack Canyon can be reduced from 9 well pads to 3 well pads. As discussed in Section 2.6.2.2, if construction within Jack Canyon is determined necessary, BBC and other operators would be required to submit a plan of development for the proposed wells, roads, and pipelines that would be constructed in the bottom of the canyon, prior to improving the existing road or constructing a new road. |
| 1335      | Noise/ Recreation/ Special Designations | Noise from the wells in Jack Canyon would be audible from the Green River. One mile within sheer walls is not very far in that silent environment.  | See response to comment #164.  |
| 1336      | Alternatives                            | Nine Mile Canyon is the only practical access route that provides year-round access to the WTP Project Area. BBC funded a study of potential alternative routes, which included review by a professional engineer, helicopter surveys and on-ground walking and horseback surveys. In the study, numerous alternative routes were carefully considered. All alternative routes would produce environmental disturbances if they were to be used in the place of Nine Mile Canyon. None of the alternative routes would provide practical access to year-round operations. | In response to other comments received during the public comment period, the BLM has decided to evaluate the Trail Canyon alternative access route.<br><br>Contained within the EIS are multiple engineering studies conducted by BBC contractors on various access routes within the WTP Project Area.  |
| 1337      | General                                 | Federal agencies, such as the BLM, are not required to mandate mitigation for impacts occurring from energy operations on private land.   | The BLM recognizes that it has the authority to regulate compliance with mitigation measures on Federal lands within the WTP Project Area. However, other surface management agencies may require compliance with BLM recommended mitigation measures, as determined necessary to protect certain resources or resource values. The operators may also voluntarily agree to comply with such measures to reduce the impacts of development.  |
| 1338      | Special Designations                    | The EIS should further explain how Congress has recognized the WSA leases as valid and existing rights, and the work which was occurring at that time.  | Section 3.17 contains information on the WSAs taken primarily from the 1991 Utah Statewide Wilderness Inventory Report. Within this section, human imprints (including past oil and gas development) and valid and existing rights are discussed in detail.  |
| 1339      | General                                 | Though not the mandate of the DOI, every effort should be made to curb the belligerence and lack of courtesy manifested by BBC employees and contractors.   | This is an opinion statement and not a substantive comment.  |



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| Comment # | Topic/ Resource             | Public Comment  | BLM Response   |
|-----------|-----------------------------|---|--|
| 1340      | Special Designations        | <p>Major natural gas development should not be planned for the area of Desolation and Gray Canyons. This development seems to be planned in a manner that would have a large visual impact on the experience of more than 6,000 boaters.</p> <p>The alternatives also violate the Desolation Canyon and Jack Canyon WSAs, and the Green River WSR corridor.</p>   | Under Alternatives B and D, there would be no development within the viewshed of the Green River, within the Desolation and Jack Canyon WSAs, or within the Green River WSR corridor. Under Alternatives C and E, there could potentially be three wells within the viewshed of the Green River; however, mitigation measures are proposed that would reduce or eliminate these impacts (see Table 2.6-8).   |
| 1341      | Alternatives/<br>Vegetation | In the desert environment of Nine Mile Canyon, even the most careful drilling will inevitably cause damage that cannot be undone in the span of lifetimes. The 5-year period allowed in the EIS for "complete remediation" is ludicrous.  | As discussed in Appendix C, "based on the climatic conditions of the WTP Project Area, it was determined that successful reclamation could be reasonably expected to occur within a period of 5 years." As discussed in Section 2.1.4, "reclamation would be considered successful when 70 percent of the pre-disturbance plant density, by desirable ground cover/understory species is established over the entire reclaimed area." It is not to be implied that successful reclamation is equivalent with complete remediation, which as discussed elsewhere in the document could take approximately 50 years (see Section 4.17.1.3). Irretrievable and Irreversible impacts, which are defined in EIS are discussed in each resource section. |
| 1342      | Alternatives                | The BLM should consider an alternative that evaluates alternative access routes to the WTP Project Area, rather than accessing proposed development through Nine Mile Canyon.   | See response to comment #34.   |
| 1343      | Alternatives                | Nine Mile Canyon is the only practical access route that provides year-round access to the WTP Project Area. BBC funded a study of potential alternative routes, which included review by a professional engineer, helicopter surveys and on-ground walking and horseback surveys. In the study, numerous alternative routes were carefully considered. All alternative routes would produce environmental disturbances if they were to be used in the place of Nine Mile Canyon. None of the alternative routes would provide practical access to year-round operations. | See response to comment #1336.   |
| 1344      | Alternatives/ Cultural      | Prior to stopping or limiting development on the basis of impacts to cultural resources (dust impacts), the BLM must demonstrate using sound science and peer-reviewed literature that such impacts will occur. There have been no such studies released to date.   | See response to comment #1334a.  |
| 1345      | Socioeconomics              | The FEIS should go into more detail highlighting more specifics about the economic benefits this project will have, and how these benefits will help sustain local economies in the years to come.  | The EIS contains a detailed socioeconomic analysis. Please see Sections 3.13, 4.13, and 5.13.  |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                             |
|-----------|-----------------|--|--|
| 1346      | Alternatives    | I am adding my name to the list of commenters that wants to see the BLM reconsider an alternative access route that avoids Nine Mile Canyon.   | See response to comment #34.             |
| 1347      | Alternatives    | The BLM should consider an alternative that looks at paving Nine Mile Canyon Road, as well as an alternative that evaluates alternative access routes that avoid the use of Nine Mile Canyon Road altogether.  | See responses to comments #1248 and #34. |
| 1348      | Alternatives    | Current activity in the canyon has brought many local, regional, State, and Federal agencies to the table to talk about the poor conditions of Nine Mile Canyon Road that existed before energy companies were present in the canyon. We are now talking as a unified group, in well organized meetings, of our intentions to make the road safer, free of dust, free of rutted-out areas that make travel to the tourist, rancher, landowner, and industry a much more pleasant driving experience. This partnership is long overdue for the enhancements to the canyon road. | See response to comment #651.            |
| 1349      | Alternatives    | There are no viable alternative access routes to the WTP Project Area. Any alternative would cause additional environmental damage.  | See response to comment #1336.           |
| 1350      | Alternatives    | There are no viable alternative access routes to the WTP Project Area. Any alternative would cause additional environmental damage.  | See response to comment #1336.           |
| 1351      | Alternatives    | There are no viable alternative access routes to the WTP Project Area. Any alternative would cause additional environmental damage.  | See response to comment #1336.           |
| 1352      | Alternatives    | There are no viable alternative access routes to the WTP Project Area. Any alternative would cause additional environmental damage.  | See response to comment #1336.           |
| 1353      | Socioeconomics  | The BLM is required in the FEIS to determine what the socioeconomic impacts are to the impacted communities. The BLM should spell out in greater detail just how significant the economic benefits to the entire region would be.  | See response to comment #1345.           |

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| Comment # | Topic/ Resource                | Public Comment   | BLM Response  |
|-----------|--------------------------------|--|---|
| 1354      | Socioeconomics                 | The jobs created by drilling are also short-lived. The WTP project would create jobs for only a matter of years. The new abundance of work would cause the surrounding residential and commercial areas to expand rapidly, but upon the termination of the project, the economic support which allowed the growth of the surrounding areas would cease to exist, leaving the surrounding towns impoverished. The decreased ratio of jobs to people would incite large scale emigration from the area. Though the project would create the exciting potential for new employment, the economic stimulus would be short-lived and ultimately harm the local economy. In short, the project would create a boom town, but leave a ghost town. | Employment projections for each alternative can be found in Section 4.13. Impacts on community social conditions, which include the impacts of economic boom periods, are also discussed within this section.   |
| 1355      | Socioeconomics                 | The expansion of natural gas development would have negative impacts on other sectors within the regional economy and social system. Development in such a pristine place as the WTP area would seriously decrease the amount of tourism and outdoor recreation, which has traditionally contributed to the local economy and social dynamic.  | Impacts to specific economic sectors that could be impacted by implementation of the Proposed Action can be found in Section 4.13.2.2. Similar analyses are contained in the impact analyses for each of the other alternatives analyzed in detail.   |
| 1356      | Rangeland Management/ Land Use | The project also has potentially negative effects on agriculture, as it has a large potential to disturb grazing and irrigation patterns.  | Impacts to agriculture and grazing are discussed in Sections 4.6 and 4.7.   |
| 1357      | Air Quality/ Visual Resources  | Drilling also contributes to local and down-wind air pollution, degrades the visual landscape, and has distinctly negative social connotations. The project would therefore decrease the quality of life for nearby residents and could have long-lasting negative effects on property values.   | Impacts to air quality are discussed in Section 4.3. Visual resource impacts are discussed in Section 4.16. Socioeconomic impacts are discussed in Section 4.13. Impacts to private landowners are discussed in Section 4.6. Consistency with local planning objectives is discussed in Chapter 1 of the EIS. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 1358      | Water           | <p>The EIS contains insufficient baseline water quality and flow data. The lack of water testing in the WTP area shows a lack of consideration for those who depend on the water downstream of the project for drinking and irrigation. For example, data for Nine Mile Creek is over half a century old (Table 3.5-1.) We are concerned about the impacts of wastewater injection on aquifers, and the impacts of runoff and water exploitation on the watershed. The project could have far-reaching effects on aquatic ecosystems and wetlands. Two areas of particular concern to us are the Uintah and Ouray Indian Reservation and the Gulf of California. The project area will directly impact the Nine Mile Creek and Jack Creek, which are tributaries of the Green River. Below the project site, the Green River flows through the Uintah and Ouray Indian Reservation. Damaging the water quality of this sovereign people by polluting or decreasing flow would be highly unjust. Downstream of the reservation, the Green River flows into the Colorado River; this then flows into the Gulf of California. The Gulf of California is currently a very ecologically fragile zone. Pollution and decreased flow from the Colorado River are increasing its salinity and threatening to make it completely void of life. The WTP project would negatively impact this and other natural ecosystems, in addition to threatening human water uses.</p> | <p>The DEIS discloses all potential impacts of the project on water quality in the Green River, using all existing information. Also see response to comment #773.</p>             |
| 1359      | Air Quality     | <p>The WTP project would contribute to localized air pollution. Between vehicle exhaust, road dust, and the drilling itself, the project would increase the concentration of particulate matter pollution, which has negative health impacts on the respiratory systems of humans and other organisms.</p>  | <p>Impacts to air quality are discussed in Section 4.3.</p>  |
| 1360      | Air Quality     | <p>The EIS fails to include an analysis of the project's contributions to global climate change.</p>  | <p>See response to comment #1182.</p>  |
| 1361      | Air Quality     | <p>The project promises to emit large quantities of nitrous oxides, a leading contributor to acid rain.</p>   | <p>The air quality analysis and the air quality technical support documents (Appendix J) disclose the quantities of nitrous oxides potentially emitted under all alternatives.</p> |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 1362      | Wildlife        | Site construction, road building, and increased human activity would destroy and segment crucial habitats. The site is an important store of biodiversity, including many endangered and threatened species of plants and animals.   | See response to comment #292. Potential direct, indirect, and cumulative effects of the proposed natural gas development project on plant and wildlife species (including special status species) and habitats (including crucial and critical habitats) are disclosed in Sections 4.8, 4.9, 4.10, 5.8, 5.9, and 5.10 of the EIS. |
| 1363      | Soils           | Soil and geological formations are critical to the survival of an ecosystem. Cryptobiotic crusts cover 30 percent of the project area (3.4.4.). These ancient and complex micro-ecosystems are crucial to the ecological and geological balance of the soil, and are thus indispensable to the ecosystem as a whole. These crusts are extremely susceptible to destruction and have an incredibly long recovery period. During this time, the area is tremendously vulnerable to erosion, invasive plants, and nutrient loss. The DEIS admits most of the soil has poor prospects for recovery, and without healthy soil, there can be no healthy ecosystem. Site clearing, changing the geological contours of the area, and road building would cause erosion, soil loss, and ultimately damage the local ecosystems. The DEIS's projected reclamation period for the area is far too short. After drilling activities, the local ecosystems will never be the same. | See response to comment #1290.  |
| 1364      | Cultural        | Though we know the WTP area to be rich in cultural resources, our knowledge of the exact location of these resources is still cursory. Experts estimate that only 17 percent of the area has been surveyed for cultural resources (4.12.1.1.) Because most of the area is not yet surveyed, the potential for the drilling project to accidentally destroy fossils and artifacts is incredibly high. Site building, fugitive dust, and increased human contact all pose risks to these historical vestiges. The loss of these resources would mean lost opportunities for science and anthropology, as well as cultural damage for nearby indigenous groups.   | See responses to comments #913 and #1228.   |

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| Comment # | Topic/ Resource      | Public Comment   | BLM Response   |
|-----------|----------------------|--|--|
| 1365      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.   |
| 1366      | General              | BLM should recognize that past efforts to resolve problems of dust, chemicals, and exhaust have been unsuccessful. New policies must be developed that will protect the canyon.  | See responses to comments #971 and #651.   |
| 1367      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.   |
| 1368      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.   |
| 1369      | Special Designations | The EIS should contain additional noise, light, and direct visualization mitigation for any pad that will be within an impact zone (either by sound, by nighttime light, or by line of sight) of the Green River corridor. The BLM should also maintain road closures through gating until the ultimate removal of roads, after the 20 year life of the project is complete. | Alternatives C, D, and E, contain mitigation for noise and direct visualization, and light that would reduce the impacts of all development within sight and sound of the Green River (see Table 2.6-8). A statement has been added into Alternatives C, D, and E, that the operators would be required to maintain road closures through gating until the ultimate removal of roads, after the life of the project. |
| 1370      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.   |
| 1371      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.   |
| 1372      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.   |

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| Comment # | Topic/ Resource                    | Public Comment  | BLM Response  |
|-----------|------------------------------------|---|---|
| 1373      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.          | See response to comment #34.  |
| 1374      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.          | See response to comment #34.  |
| 1375      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.          | See response to comment #34.  |
| 1376      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.          | See response to comment #34.  |
| 1377      | Alternatives                       | I urge the BLM to fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.                                 | See response to comment #160.   |
| 1378      | Noise/ Special Designations        | The EIS does not carefully consider the impacts of noise and other drilling-related disturbances on either Desolation Canyon (a NHL) or Nine Mile Canyon, though these factors will significantly affect the experience of visitors to both of those areas. | <p>The impacts of noise in Nine Mile Canyon and Desolation Canyon are discussed qualitatively in various sections within the EIS. For example, see the discussion of the Nine Mile Canyon SRCMA and the Desolation Canyon SRMA in Section 4.11.1).</p> <p>For the FEIS, noise modeling has been conducted at select locations to quantify impacts to noise-sensitive areas. See Section 4.18.</p> |
| 1379      | Special Designations               | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized "within sight or sound of the river."  | See response to comment #139.   |
| 1380      | Special Designations/ Alternatives | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.                                    | See response to comment #160.   |

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| Comment # | Topic/ Resource                       | Public Comment   | BLM Response  |
|-----------|---------------------------------------|--|---|
| 1381      | Special Designations/<br>Alternatives | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.   | See response to comment #160.   |
| 1383      | Special Designations                  | The DEIS does not adequately address the impacts of noise and other drilling-related disturbances on either Desolation Canyon (a NHL) or Nine Mile Canyon, though these factors would significantly affect the experience of visitors in those areas.  | See response to comment #1378.  |
| 1384      | Special Designations                  | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized "within sight or sound of the river."   | See response to comment #139.   |
| 1384      | Special Designations/<br>Alternatives | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.   | See response to comment #160.   |
| 1385      | Special Designations                  | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized "within sight or sound of the river."   | See response to comment #139.   |
| 1386      | Cultural                              | Wells in Nine Mile Canyon and side canyons will impact Nine Mile Canyon and the NMCAD. The impacts of these wells and how to mitigate the loss of values and experiences by visitors has not been adequately explained.  | See responses to comments #753 and #1310.   |
| 1388      | Alternatives                          | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.  |
| 1389      | Special Designations                  | Approximately 200 wells in wilderness quality lands would result in loss of natural values essential to wilderness. Impacts to wilderness values have not been adequately considered. How to mitigate the loss of wilderness values and experiences by visitors is not adequately explained. | The EIS contains a range of alternatives, some of which are intended to protect wilderness values with the WTP Project Area. Impacts to these values are discussed in detail in Section 4.17 of the EIS. As discussed in Section 2.6.1.3, Tables 2.6-7 and 2.6-8 contain numerous mitigation measures that would serve to minimize impacts. |



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| Comment # | Topic/ Resource                    | Public Comment   | BLM Response                              |
|-----------|------------------------------------|--|---|
| 1389      | Noise/ Special Designations        | The DEIS does not adequately address the impacts of noise and other drilling-related disturbances on either Desolation Canyon ( a NHL) or Nine Mile Canyon, though these factors would significantly affect the experience of visitors in those areas. | See response to comment #1378.            |
| 1390      | Special Designations               | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.                               | See response to comment #160.             |
| 1391      | Special Designations               | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized "within sight or sound of the river."   | See response to comment #139.             |
| 1392      | Noise                              | The DEIS does not adequately address the impacts of noise and other drilling related disturbances on either Desolation Canyon (a NHL) or Nine Mile Canyon, though these factors would significantly affect the experience of visitors in those areas.  | See responses to comments #1378 and #822. |
| 1393      | Noise                              | The DEIS does not adequately address the impacts of noise and other drilling-related disturbances on either Desolation Canyon (a NHL) or Nine Mile Canyon, though these factors would significantly affect the experience of visitors in those areas.  | See responses to comments #1378 and #822. |
| 1394      | Special Designations               | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized "within sight or sound of the river."   | See response to comment #139.             |
| 1395      | Special Designations/ Alternatives | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.                               | See response to comment #160.             |
| 1396      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.     | See response to comment #34.              |

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| Comment # | Topic/ Resource    | Public Comment   | BLM Response   |
|-----------|--------------------|--|--|
| 1397      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.   |
| 1398      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.   |
| 1399      | Cultural Resources | The EIS must contain a complete analysis by rock art conservators.   | Constance Silver, author of the Dust Study included as Appendix G, is a rock art conservator. In addition, qualified third-party and agency cultural resource specialists have assisted in the preparation of the EIS. |
| 1400      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.   |
| 1401      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.   |
| 1402      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.   |
| 1403      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.   |
| 1404      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                 |
|-----------|-----------------|--|------------------------------|
| 1405      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1406      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1407      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1408      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1409      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1410      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1411      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1412      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                 |
|-----------|-----------------|--|------------------------------|
| 1413      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1414      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1415      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1416      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1417      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1418      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1419      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1420      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                 |
|-----------|-----------------|---|------------------------------|
| 1421      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and its side canyons. | See response to comment #34. |
| 1422      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and its side canyons. | See response to comment #34. |
| 1423      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                      | See response to comment #34. |
| 1424      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                      | See response to comment #34. |
| 1425      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                      | See response to comment #34. |
| 1426      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                      | See response to comment #34. |
| 1427      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                      | See response to comment #34. |
| 1428      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                      | See response to comment #34. |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response                 |
|-----------|-----------------|---|------------------------------|
| 1429      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt roads that now runs through Nine Mile Canyon and its narrow side canyons. | See response to comment #34. |
| 1430      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1431      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1432      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1433      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1434      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1435      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1436      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |

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|-----------|-----------------|--|--|
| 1437      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.         | See response to comment #34.   |
| 1438      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.         | See response to comment #34.   |
| 1439      | Consultation    | The BLM should heed to the concerns of Native Americans and others, and deny this project.   | See responses to comments #8 and #28.  |
| 1440      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.         | See response to comment #34.   |
| 1441      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of an alternative paved access route to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.   |
| 1442      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.         | See response to comment #34.   |
| 1443      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.         | See response to comment #34.   |
| 1444      | Cultural        | The BLM is not conducting research on or listening to strong findings of recent damages by heavy truck, creating toxic chemical dust settling on rock art in Nine Mile Canyon.   | An operator-funded dust study was included in the EIS (Appendix G) to evaluate the impacts of dust and chemical dust suppressants (magnesium chloride) settling on rock art in Nine Mile Canyon. In addition, the proponent and Carbon County have agreed to discontinue the use of magnesium chloride in Nine Mile Canyon (see Appendix R). |
| 1445      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.         | See response to comment #34.   |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                 |
|-----------|-----------------|--|------------------------------|
| 1446      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1447      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1448      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1449      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1450      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1451      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1452      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1453      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |



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| Comment # | Topic/ Resource | Public Comment  | BLM Response                 |
|-----------|-----------------|---|------------------------------|
| 1454      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1455      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1456      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1457      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1458      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1459      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |
| 1460      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt roads that now runs through Nine Mile Canyon and its narrow side canyons. | See response to comment #34. |
| 1461      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.                              | See response to comment #34. |

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| Comment # | Topic/ Resource                       | Public Comment   | BLM Response                             |
|-----------|---------------------------------------|--|--|
| 1462      | Alternatives                          | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.             |
| 1463      | Alternatives                          | No alternatives contained with the EIS provide adequate protection for cultural resources.   | See response to comments #3 and #217.    |
| 1464      | Alternatives                          | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.             |
| 1465      | Alternatives                          | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.             |
| 1466      | Alternatives                          | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.             |
| 1467      | Special Designations/<br>Alternatives | All the alternatives improperly infringe upon the Desolation Canyon WSA and Green River WSR corridor.  | See response to comment #1289.           |
| 1468      | Special Designations/<br>Alternatives | All of the alternatives improperly infringe on the Jack Canyon WSA.  | See response to comment #1289.           |
| 1469      | Special Designations/<br>Wildlife     | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these resources from gas drilling must be considered.   | See response to comment #986.            |
| 1470      | Recreation/<br>Socioeconomics         | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.                                   | See responses to comments #119 and #139. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 1471      | Water           | Every alternative is deficient in explaining how toxic material, either through liquid spill, airborne contamination, or solid waste, will be contained to avoid being spilled into the Green River at drill sites that are within one-half mile of the river. | See response to comment #988.   |
| 1472      | Alternatives    | The BLM must consider at least one no-drilling alternative that has no drilling, no new roads, and no new development.   | See response to comment #1539.  |
| 1473      | Air Quality     | The EIS does not adequately address the green house gas effect.  | See response to comment #1182.  |
| 1474      | Wildlife        | Toxic spills present a threat to the pikeminnow's breeding grounds in the Green River.   | Potential effects to the Colorado pikeminnow (including effects from potential spills) are disclosed in Section 4.10 of the EIS.  |
| 1475      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.             | See response to comment #34.  |
| 1476      | General         | Commenter requests a response letter.  | In compliance with CEQ regulations (CFR 1503.4), the agency is required to consider comments individually and collectively within the EIS; however, the BLM is not obligated to provide a direct response letter to the commenter. Given the volume of comments received on the DEIS, this would place an unnecessary burden on the agency. Responses to all substantive comments received on the EIS are included in this table. |
| 1477      | Cultural        | The EIS should include Tribal responses since many of the Tribes claim historical links to Nine Mile Canyon.   | See responses to comments #8 and #28.   |
| 1478      | Cultural        | A comprehensive cultural resource inventory must be completed for the WTP Project Area.  | See responses to comments #913 and #1228.   |
| 1479      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.             | See response to comment #34.  |
| 1480      | Cultural        | BLM has responsibility under Federal law, not only to minimize the risk to important historic and cultural resources, but to protect them.   | See response to comment #8.   |
| 1481      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.             | See response to comment #34.  |

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### Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses

| Comment # | Topic/ Resource | Public Comment   | BLM Response                 |
|-----------|-----------------|--|------------------------------|
| 1482      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1483      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1484      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1485      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1486      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1487      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1488      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1489      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |

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| Comment # | Topic/ Resource | Public Comment   | BLM Response                 |
|-----------|-----------------|--|------------------------------|
| 1490      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1491      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1492      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1493      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1494      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1495      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1496      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |
| 1497      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34. |

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| Comment # | Topic/ Resource    | Public Comment  | BLM Response  |
|-----------|--------------------|---|---|
| 1498      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.        | See response to comment #34.  |
| 1499      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.        | See response to comment #34.  |
| 1500      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.        | See response to comment #34.  |
| 1501      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.        | See response to comment #34.  |
| 1502      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.        | See response to comment #34.  |
| 1503      | Alternatives/ NEPA | The EIS fails to meet NEPA's requirement that it analyze a reasonable range of alternatives because it does not include an alternative that would protect the area from further industrial gas development, and restore the damage from past development. | See response to comment #217.<br><br>A "No New Development in the WTP Project Area" alternative was considered by BLM, but eliminated from detailed analysis for the reasons set forth in Section 2.8.3 of the EIS. This alternative does not meet the BLM's purpose and need for the project; therefore, detailed consideration was not necessary. See, for example, <i>Citizens' Comm. to Save Our Canyons v. U.S. Forest Serv.</i> , 297 F.3d 1012, 1031 (10th Cir. 2002) ("[a]lternatives that do not accomplish the purpose of an action are not reasonable and need not be studied in detail by the agency"). |
| 1504      | Air Quality        | The EIS fails to give any consideration to the impacts of the Proposed Action on global climate change.   | See response to comment #1182.  |
| 1505      | Alternatives       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.        | See response to comment #34.  |

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| Comment # | Topic/ Resource | Public Comment  | BLM Response   |
|-----------|-----------------|---|--|
| 1507      | Alternatives    | <p>To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.</p> <p>Revenues derived from implementation of the Proposed Action or alternatives should be used to construct the new route.</p> | See response to comment #34. Construction of all roads, including the Trail Canyon route proposed under Alternative C, would be paid for by the operators. |
| 1507      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.  | See response to comment #34.   |
| 1508      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.  | See response to comment #34.   |
| 1509      | Alternatives    | The BLM should consider an alternative which requires the operators to use project revenues to pave the Nine Mile Canyon Road.  | See responses to comments #905 and #217.   |
| 1510      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.  | See response to comment #34.   |
| 1511      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.  | See response to comment #34.   |
| 1512      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.  | See response to comment #34.   |

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| Comment # | Topic/ Resource   | Public Comment  | BLM Response  |
|-----------|-------------------|---|---|
| 1513      | Alternatives      | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.  | See response to comment #34.  |
| 1514      | Alternatives      | The Nine Mile Canyon Road should be closed to the public and viewing done from electric vehicles for tourists.  | Full consideration of the commenter's suggestion is unwarranted because it is 1) beyond the scope of this EIS, 2) neither technically or economically feasible; 3) does not meet the purpose and need; and 4) is inconsistent with the basic policy objective for the management of this area including the Price Field Office Approved RMP.  |
| 1515      | General/ Cultural | Habitation and rock art site are protected under the Antiquities Act.   | Comment noted.  |
| 1516      | General/ Cultural | Sites within Nine Mile Canyon are likely to have a significant cultural and religious value to the Native peoples. As such, those sites would be protected from any damage under the Native American Freedom of Religion Act.   | Throughout the EIS process, the BLM has had ongoing consultation with Native American Tribes. A summary of Tribal consultation is contained in Section 6.2.1.<br><br>As discussed in Section 3.12.1, the cultural resources analysis for this EIS was conducted by U.S.D.I. (FLPMA) Permit No. 05-UT-60122, in compliance with Federal and State legislation including the Antiquities Act of 1906, the National Historic Preservation Act (NHPA) of 1966 (as amended), the NEPA of 1969, the Archaeological and Historic Preservation Act of 1974, the Archaeological Resources Protection Act of 1979, and the American Indian Religious Freedom Act of 1978.   |
| 1517      | Cultural          | The EIS must address the impacts of dust, vehicle exhaust, and any other atmospheric perturbations upon the integrity of the rock art and archaeological sites. This includes but is not limited to chemical assays of the effects of increased vehicular traffic on the patina protective surfaces, which overlay the oxidized surfaces of the rock art. Further, BLM must document the level of increased visitation to these sites due to increased traffic and increased ease of accessibility. Such assessments are difficult to conduct and even more difficult to substantiate because they are by their very nature presumptive in the evaluation of probable consequences. | See response to comment #1240 and #1243.<br><br>Increases in the number of site workers in the WTP Project Area would depend on the alternative selected as well level of development and production. Nonetheless, average and peak employment numbers for the development phase have been calculated based on the proposed drilling schedules and can be found under each alternative analysis in Section 4.13. The BLM does not currently have an agency-wide program to collect visitor use data that enables the BLM to incorporate statistically-valid visitor use monitoring information into planning and management decisions. Without specific visitor use data for Nine Mile Canyon and other locations within the WTP Project Area, the recreational and economic impacts can only be discussed qualitatively. As discussed in Section 4.11, empirical observations by frequent users of Nine Mile Canyon (e.g., Nine Mile Canyon Coalition) indicate that recreational use of the area for cultural and heritage tourism has experienced steady decline since a surge in oil and gas development began in the WTP Project in 2004. These observations are supported by anecdotal information provided by the Castle Country Regional Information Center in Price, that during the past two years, visitor interest and inquiries about visiting the Canyon have declined significantly. Based on the proposed level of oil gas development, it is expected that declines in visitors to Nine Mile Canyon would continue for the LOP; however, quantifying and estimating the total decrease in visitors would be too speculative. While visitor use of Nine Mile Canyon itself may decrease, there could be a moderate increase in recreational use of within other portions of the WTP Project Area due to improved accessibility (e.g., Horse Bench and Jack Canyon) (see Section 4.11.1.2). The potential impacts of increased visitation under the Proposed Action are discussed within Section 4.12.1.2. Similar analyses are contained with Section 4.12 for each of the other alternatives. It should be noted that under Alternatives C, D, and E, some roads would be gated to prevent increased public access into what are currently inaccessible areas. |
| 1518      | Alternatives      | The BLM should consider paving Nine Mile Canyon Road as an alternative.   | See response to comment #1248.  |



| <b>Appendix S</b><br><b>Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses</b> |                        |  |                                       |
|---|------------------------|--|---------------------------------------|
| <b>Comment #</b>  | <b>Topic/ Resource</b> | <b>Public Comment</b>  | <b>BLM Response</b>                   |
| 1519  | Cultural               | The EIS should fully disclose what is being done to comply with the 106 process and Tribal consultation.   | See responses to comments #8 and #28. |
| 1520  | Alternatives           | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.          |
| 1521  | Alternatives           | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.          |
| 1522  | Alternatives           | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.          |
| 1523  | Alternatives           | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.          |
| 1524  | Alternatives           | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.          |
| 1525  | Alternatives           | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.          |
| 1526  | Alternatives           | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.          |
| 1527  | Socioeconomics         | The EIS should consider the impacts of the Proposed Action and alternatives on tourism. One aspect of the State of Utah's tourism industry is the valuable and beautiful rock art.   | See response to comment #1355.        |

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| Comment # | Topic/ Resource                    | Public Comment  | BLM Response                   |
|-----------|------------------------------------|---|--------------------------------|
| 1528      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.    | See response to comment #34.   |
| 1529      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.    | See response to comment #34.   |
| 1530      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.    | See response to comment #34.   |
| 1531      | Alternatives                       | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.    | See response to comment #34.   |
| 1532      | Special Designations/ Noise        | The DEIS does not adequately address the impacts of noise and other drilling related disturbances on either Desolation Canyon (a NHL) or Nine Mile Canyon, though these factors would significantly affect the experience of visitors in those areas. | See response to comment #1378. |
| 1533      | Special Designations               | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized "within sight or sound of the river."  | See response to comment #139.  |
| 1534      | Special Designations/ Alternatives | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.                              | See response to comment #160.  |
| 1535      | Special Designations/ Alternatives | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.                              | See response to comment #160.  |

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| Comment # | Topic/ Resource               | Public Comment  | BLM Response   |
|-----------|-------------------------------|---|--|
| 1536      | Special Designations          | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.  |
| 1537      | Cultural                      | Before authorizing more drilling, the BLM must go back and take a hard look at impacts to cultural resources such as dust and noise, and consider ways to prevent them under NEPA.  | Impacts to cultural resources are discussed in Sections 4.12 and 5.12. Noise impacts are discussed in Section 4.18 and 5.18, as well other resource impact sections (wildlife, recreation, and special designations).<br><br>The commenter has not identified any deficiencies in the analysis or recommended additional mitigation measures. Therefore, the BLM is not able to provide a more detailed response.  |
| 1538      | Wildlife                      | Increased edge effects will allow predators to penetrate into areas that they would not normally venture. The EIS must address the short- and long-term consequences that may result.   | The comment does not include enough specificity or any new information for the BLM to provide a detailed response. However, Sections 4.9 and 4.10 of the EIS discuss potential effects of the project (including displacement and competition impacts due to increased fragmentation) on wildlife.   |
| 1539      | Alternatives                  | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.  | The No Action Alternative is a rejection of the operators' Proposed Action on Federal lands within the WTP Project Area. However the analysis of the No Action Alternative must take into consideration what is reasonably foreseeable if the application is denied. In this case, it is reasonably foreseeable that the applicant would seek to develop valid and existing leases on State and private lands, over which the BLM has no jurisdiction.<br><br>Court precedent holds that operators have a right of access to these lands. That right is subject to Federal regulation when its exercise requires the crossing of Federal property. Such regulation cannot, however, prohibit access or be so restrictive as to make economic development competitively unprofitable. |
| 1540      | Visuals/ Special Designations | The viewshed on the map of the project implies that the only impact to river runners would be if gas wells could be seen from the river. That is hardly the only consideration in an area that includes two WSAs. If the WSAs have roads constructed within them, they will be removed from potential wilderness designation consideration.   | Impacts to the WSAs are discussed in Section 4.17 of the EIS. In addition, impacts to primitive and unconfined recreation and river recreation are discussed in Section 4.11. As stated in Section 4.11.1.2, river recreationists who hike into the side canyons from the river would, depending on their location, be in closer proximity to development, and could be more apt to be impacted by the sights and sounds of development."  |
| 1541      | Alternatives                  | Why did the BLM not further consider the alternatives eliminated at the bottom of ES-8?   | See response to comment #217.<br><br>As required by NEPA, the BLM has provided explanation or rationale that supports the BLM's decision to eliminate these alternatives from detailed analysis in Section 2.8 of the EIS.   |
| 1542      | Alternatives                  | The BLM should not make a decision until 1) all resource and wildlife impacts are considered, 2) at least one alternative that respects the wilderness qualities for the WSAs and surrounding areas is considered, 3) impacts on commercial and private river rafters are considered, 4) and operators specify how they will handle toxic materials (including liquid contamination, airborne, pollution, and solid waste). | See response to comment #217. The alternatives and impact analyses within the EIS address each of the commenter's concerns.  |

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| Comment # | Topic/ Resource                    | Public Comment  | BLM Response   |
|-----------|------------------------------------|---|--|
| 1543      | Alternatives                       | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.  | See response to comment #1539.   |
| 1544      | Wildlife                           | The disturbance to wildlife habitat and migration patterns are understudied in the DEIS.  | Impacts to wildlife habitat and migration are discussed in detail in Section 4.9. The comment does not identify any specific deficiencies in the analysis. Therefore, the BLM cannot provide a detailed response.        |
| 1545      | Water/ Soils/ Air Quality          | The EIS contains insufficient information on pollutant spills and their consequences.   | Impacts to air, soils, and water quality, including contamination and transport pollutants, are addressed in Sections 4.3, 4.4, and 4.5 and associated cumulative impact assessments for these resources in Chapter 5.0. |
| 1546      | Special Designations               | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized "within sight or sound of the river."  | See response to comment #139.  |
| 1547      | Special Designations/ Alternatives | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.  |
| 1548      | Consultation                       | The EIS is deficient and should be withdrawn until important interested groups including Nine Mile Canyon Coalition, SUWA, the Utah Wilderness Alliance, the CPAA, and the NTHP are brought in as consulting parties in the planning process. This has not happened. Not doing so is a violation of the NHPA. | See responses to comments #8.  |
| 1549      | Cultural                           | The EIS is deficient and should be withdrawn until creative means for mitigating impacts on cultural resources are developed and published.   | See responses to comments #3 and #217.   |
| 1550      | Cultural                           | The EIS is deficient and should be withdrawn until a study is completed that considers dust impacts on cultural resources including, particularly, magnesium chloride dust.   | See responses to comments #53, #1240, and #1243.   |
| 1551      | Alternatives                       | The EIS is deficient and should be withdrawn until alternative roads to the WTP are considered fully, and the expected damage to cultural resources is weighed adequately against impacts in Nine Mile Canyon.  | See response to comment #34.   |
| 1552      | Cultural                           | The EIS is deficient and should be withdrawn until a complete study of all cultural resources in the vicinity of any proposed land-clearing, excavation, pipeline burial, drilling, or road improvement is carried out.   | See responses to comments #913 and #1228.  |

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| Comment # | Topic/ Resource                | Public Comment   | BLM Response   |
|-----------|--------------------------------|--|--|
| 1553      | Recreation/ Cultural           | The EIS is deficient and should be withdrawn until impacts on visitor experience are fully considered.   | Impacts on visitor experiences are discussed in Section 4.11. The comment does not identify any specific deficiencies in the analysis. Therefore, the BLM is not able to provide a more detailed response. Also see response to comment #1316. |
| 1554      | Visual Resources               | Infrastructure for this project (with its network of almost 200 miles of new roads and pipelines, year-round gas drilling, and compression stations, new airfields, temporary worker housing, and other facilities with adverse dark sky impact) would be clearly visible for 34 miles of Desolation Canyon.   | See responses to comments #982 and #983.   |
| 1555      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.  | See response to comment #1289.   |
| 1556      | Special Designations           | The BLM is mandated with the responsibility of preserving wilderness quality lands and rivers, such as the Deso-Gray for their wilderness character, until Congress can decide in legislation on the preservation of these wild lands.   | See responses to comments #301 and #938.   |
| 1557      | Wildlife/ Special Designations | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these critical resources by gas drilling must be considered.  | See response to comment #986.  |
| 1558      | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River at drill sites that are within one-half mile of the river.  | See response to comment #988.  |
| 1559      | Recreation/ Socioeconomics     | Each of the alternatives fails to take into account the impact this gas field development will have to the roughly 6,000 do-it-yourself and commercial and river runners who use the Green River corridor each year.   | See response to comment #119.  |
| 1560      | Socioeconomics                 | The EIS will guarantee unacceptable adverse impacts to the local regional tourism economy for generations to come. Neither do-it-yourself paddlers, nor world travelers, who seek out guided services will continue to bring tourism dollars to this region. This will adversely impact the regional food, beverage, lodging, and other regional vendors who cater to the tourism economy. | See responses to comments #1355, #825, and #119.   |

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| Comment # | Topic/ Resource                | Public Comment  | BLM Response   |
|-----------|--------------------------------|---|--|
| 1561      | Alternatives                   | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.  | See response to comment #1539.   |
| 1562      | Alternatives                   | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.  | See response to comment #34.   |
| 1563      | General                        | Obtaining a copy of the DEIS to review was very difficult; as listed in the February 1, 2008 Federal Register to obtain a copy ( <a href="http://blm.gov/ut/st/en/fo/price/energy/oil_gas/">http://blm.gov/ut/st/en/fo/price/energy/oil_gas/</a> ) has not been working. This will clearly result in fewer public comments.                       | In addition to the online version, paper copies of the EIS were available at the Price Field Office, as well as at all public comment meetings. Furthermore, this is the only comment of this nature, indicating that the DEIS was readily available to the public in electronic or hardcopy format. |
| 1564      | Cultural                       | The BLM should require a complete survey and analysis of all rock art and other cultural resources prior to even considering allowing any further development. Without proper documentation, it will be impossible for the BLM to make an informed decision as to the potential damage that could be caused by the current or future development. | See responses to comments #913 and #1228.  |
| 1565      | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River at drill sites that are within one-half mile of the river.   | See response to comment #988.  |
| 1566      | Socioeconomics/ Recreation     | Each of the alternatives fails to take into account the impact this gas field development will have to the roughly 6,000 do-it-yourself and commercial and river runners who use the Green River corridor each year.  | See response to comment #119.  |
| 1567      | Wildlife/ Special Designations | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these critical resources by gas drilling must be considered.   | See response to comment #986.  |
| 1568      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289.   |

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### Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses

| Comment # | Topic/ Resource | Public Comment   | BLM Response  |
|-----------|-----------------|--|---|
| 1569      | Alternatives    | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.   | See response to comment #1539.  |
| 1570      | NEPA/ General   | The commenter requests a 90-day extension to the comment period.   | As required by CEQ regulations (CFR 1506.10), the BLM provided the public with the required 90-day public comment period, given that this document has the potential to serve as a land use plan amendment. |
| 1571      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.  |
| 1572      | Alternatives    | BLM should consider paving Nine Mile Canyon as an alternative.   | See response to comment #1248.  |
| 1573      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.  |
| 1574      | Cultural        | The EIS must contain an analysis of how dust, chemicals, and vibration could impact the rock art.  | See responses to comments #1240 and #1243.  |
| 1575      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.  |
| 1576      | Cultural        | The BLM should withdraw this EIS and proceed to obtain baseline cultural data. The Price Field Office must commit the time and resources needed to complete a full archaeological survey, and do the science necessary to mitigate the already extensive impacts of oil and gas development. | See responses to comments #913 and #1228.   |
| 1577      | Alternatives    | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.   | See response to comment #34.  |
| 1578      | Alternatives    | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.   | See response to comment #1539.  |

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| Comment # | Topic/ Resource                | Public Comment  | BLM Response  |
|-----------|--------------------------------|---|---|
| 1579      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289.  |
| 1580      | Wildlife/ Special Designations | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these critical resources by gas drilling must be considered.   | See response to comment #986.   |
| 1581      | Socioeconomics/ Recreation     | Each of the alternatives fails to take into account the impact this gas field development will have to the roughly 6,000 do-it-yourself and commercial and river runners who use the Green River corridor each year.  | See response to comment #119.   |
| 1582      | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River at drill sites that are within one-half mile of the river. | See response to comment #988.   |
| 1583      | Wildlife/ Special Designations | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these critical resources by gas drilling must be considered.   | See response to comment #986.   |
| 1584      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289.  |
| 1585      | Alternatives                   | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon.              | See response to comment #34.  |
| 1586      | Special Designations           | The Green River through Desolation Canyon should be designated as a WSR.  | See response to comment #52. Segments of the Green River contained within the Project Area were carried forward as suitable for inclusion into the National Wild and Scenic River system in the Approved RMP (page 48). |
| 1587      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289.  |
| 1588      | Special Designations           | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.   |



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| Comment # | Topic/ Resource                | Public Comment   | BLM Response  |
|-----------|--------------------------------|--|---|
| 1588      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.  | See response to comment #1289.  |
| 1589      | Special Designations           | All alternatives will take away from the wilderness setting for all users of the river corridor (e.g., ranchers, commercial and private river runners, hikers, and hunters).   | See response to comment #1340.  |
| 1590      | Water                          | The EIS does not specify how drilling will impact scarce water resources in this high desert region, or how the waste and contamination will be dealt with.  | Impacts to water resources are disclosed in Section 4.5 of the EIS. Details regarding the disposal of waste material are discussed in Section 2.1 (Details common to all alternatives). In addition, as stated in Section 1.6.5, "The Proposed Action and Alternatives would be in compliance with various Federal, State, and local laws and regulations." |
| 1591      | Wildlife/ Special Designations | The EIS should discuss noise impacts in WSAs, and how the continued expansion of development will impact wildlife.   | Noise impacts within WSAs are discussed Section 4.17 and 4.18. Impacts to wildlife are discussed in Section 4.9.  |
| 1592      | Alternatives                   | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon. | See response to comment #34.  |
| 1593      | Cultural                       | A route through Nine Mile Canyon will have both direct and indirect effects (adverse), some of which would be cumulative, on historic properties eligible for listing to the NRHP.   | Direct, indirect, and cumulative impacts to cultural resources, including sites eligible for listing on the NRHP, are discussed in Section 4.12 and 5.12.   |
| 1594      | Consultation                   | Consultation should be conducted with Indian Tribes pursuant to 36CFR 800.2(2)(ii); 800.3(f)(2); and 800.4, .5, and .6.  | See responses to comments #8 and #28.<br><br>A summary of Native American consultation can be found in Chapter 6 of the EIS.  |
| 1595      | Consultation                   | What other interested parties have been consulted regarding this undertaking pursuant to 36 CFR 800?   | See response to comment #8.   |
| 1596      | Consultation                   | Who are the other consulting parties for this undertaking?   | See response to comment #8.   |
| 1597      | Consultation                   | What were other consulting parties' comments regarding this undertaking?   | See response to comment #8.   |
| 1600      | Alternatives                   | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.   | See response to comment #1539.  |
| 1601      | Socioeconomics                 | Implementation of the Proposed Action and alternatives would adversely impact Utah and the local areas short- and long-term tourist economy (local shuttle services, rental agencies and guides, shopping at local stores and gas stations).       | See responses to comments #825, #1355, and #119.  |

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| Comment # | Topic/ Resource            | Public Comment   | BLM Response   |
|-----------|----------------------------|--|--|
| 1602      | Special Designations       | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.  | See response to comment #1289.   |
| 1603      | Recreation/ Socioeconomics | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.   | See response to comment #119.  |
| 1604      | Water                      | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river.   | See response to comment #988.  |
| 1605      | Wildlife                   | The Green River through Desolation and Grey Canyon is home to many important animal species including mountain lion, black bear, and native fish. The Colorado River pikeminnow (squawfish) has its only known breeding are in Desolation Canyon, and critical habitat to other endangered fish species are also located along the river below Flat Canyon and other areas below Jack Canyon. These species are important to preserve and protect. The EIS must take these significant species into account. | Potential direct, indirect, and cumulative effects of the proposed natural gas development project on plant and wildlife species (including special status species such as the Colorado pikeminnow) and habitats (including USFWS-designated critical habitats) are disclosed in Sections 4.8, 4.9, 4.10, 5.8, 5.9, and 5.10 of the EIS. |
| 1606      | Alternatives               | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.   | See response to comment #1539.   |
| 1607      | Special Designations       | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.   | See response to comment #160.  |
| 1608      | Special designations       | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.   | See response to comment #160.  |
| 1609      | Cultural/ Noise            | Before authorizing more drilling, the BLM must go back and take a hard look at impacts to cultural resources such as dust and noise, and consider ways to prevent them under NEPA.   | See response to comment #1537.   |

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| Comment # | Topic/ Resource                  | Public Comment  | BLM Response                   |
|-----------|----------------------------------|---|--------------------------------|
| 1610      | Alternatives                     | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1611      | Special Designations             | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289. |
| 1612      | Special Designations/ Wildlife   | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these resources from gas drilling must be considered.  | See response to comment #986.  |
| 1613      | Recreation/ Special Designations | Each of the alternatives fails to take into account the adverse impact that gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.  | See response to comment #119.  |
| 1614      | Water                            | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites that are within one-half mile of the river.   | See response to comment #988.  |
| 1615      | Alternatives                     | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands and no access across Federal lands.   | See response to comment #1539. |
| 1616      | Special Designations             | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon Wilderness Study Area.   | See response to comment #1289. |
| 1617      | Special Designations/ Wildlife   | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these resources from gas drilling must be considered.  | See response to comment #986.  |
| 1618      | Recreation/ Socioeconomics       | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.  | See response to comment #119.  |

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| Comment # | Topic/ Resource                | Public Comment   | BLM Response   |
|-----------|--------------------------------|--|--|
| 1619      | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river. | See response to comment #988.  |
| 1620      | Alternatives                   | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.   | See response to comment #1539.   |
| 1621      | Alternatives                   | There are no viable alternative access routes to the WTP Project Area. Any alternative would cause additional environmental damage.  | See response to comment #1336.   |
| 1622      | Visual Resources               | The WTP EIS does not address the visual impacts that drilling will have on Desolation Canyon.  | Potential visual impacts to Desolation Canyon are discussed in Section 4.16. |
| 1623      | Special Designations           | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized within sight or sound of the river.   | See response to comment #139.  |
| 1624      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.  | See response to comment #1289.   |
| 1625      | Special Designations/ Wildlife | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these resources from gas drilling must be considered.   | See response to comment #986.  |
| 1626      | Recreation/ Socioeconomics     | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.   | See response to comment #119.  |
| 1627      | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river. | See response to comment #988.  |
| 1628      | Alternatives                   | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.   | See response to comment #1539.   |

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| Comment # | Topic/ Resource      | Public Comment  | BLM Response  |
|-----------|----------------------|---|---|
| 1629      | Special Designations | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.   |
| 1630      | General              | The DEIS did not consider the impacts of drilling on either Nine Mile Canyon or Desolation Canyon.  | The comment does not identify any specific deficiencies in the analysis the BLM can provide a detailed response. Impacts to Nine Mile Canyon and Desolation Canyon are discussed throughout the impact analysis (for examples, see Sections 4.11 and 4.17). |
| 1631      | Special Designations | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized within sight or sound of the river.  | See response to comment #139.   |
| 1632      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1633      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1634      | Dust Study           | The BLM failed to include in its DEIS the recently released study showing a direct link between truck traffic in the Canyon and the deterioration of rock art panels, due to the buildup of dust and harmful chemicals used to control dust.                        | The referenced study was conducted specifically for the EIS and a draft version was included in Appendix G. A final version of the study has been incorporated into the FEIS. See response to comment #53.  |
| 1635      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1636      | Alternatives         | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.  | See response to comment #1539.  |
| 1637      | Water                | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites that are within one-half mile from the river. | See response to comment #988.   |

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| Comment # | Topic/ Resource                | Public Comment  | BLM Response                   |
|-----------|--------------------------------|---|--------------------------------|
| 1638      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289. |
| 1639      | Special Designations           | The Green River through Desolation Canyon should be designated as a WSR.  | See response to comment #1586. |
| 1640      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289. |
| 1641      | Recreation/<br>Socioeconomics  | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.  | See response to comment #119.  |
| 1642      | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river.          | See response to comment #988.  |
| 1643      | Alternatives                   | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1644      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289. |
| 1645      | Recreation/<br>Socioeconomics  | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.  | See response to comment #119.  |
| 1646      | Special Designations/ Wildlife | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these resources from gas drilling must be considered.  | See response to comment #986.  |
| 1647      | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites that are within one-half mile of the river.   | See response to comment #988.  |

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| Comment # | Topic/ Resource                  | Public Comment  | BLM Response                   |
|-----------|----------------------------------|---|--------------------------------|
| 1648      | Alternatives                     | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.  | See response to comment #1539. |
| 1649      | Alternatives                     | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1650      | Alternatives                     | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1651      | Alternatives                     | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1652      | Alternatives                     | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1653      | Alternatives                     | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1654      | Special Designations             | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289. |
| 1655      | Recreation/ Special Designations | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.  | See response to comment #119.  |
| 1656      | Water                            | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river.          | See response to comment #988.  |

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| Comment # | Topic/ Resource               | Public Comment  | BLM Response                   |
|-----------|-------------------------------|---|--------------------------------|
| 1657      | Alternatives                  | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.  | See response to comment #1539. |
| 1658      | Special Designations          | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289. |
| 1659      | Water                         | Before the Proposed Action or alternatives are implemented, the BLM must plan for and explain how the Green River will be protected from toxic chemical spills, pollution resulting from such development, and solid waste contamination.                           | See response to comment #988.  |
| 1659      | Recreation/<br>Socioeconomics | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.  | See response to comment #119.  |
| 1660      | Alternatives                  | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.  | See response to comment #1539. |
| 1661      | Water                         | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river.          | See response to comment #988.  |
| 1662      | Alternatives                  | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1663      | Alternatives                  | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |
| 1664      | Alternatives                  | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.   |



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| Comment # | Topic/ Resource      | Public Comment  | BLM Response                  |
|-----------|----------------------|---|-------------------------------|
| 1665      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1666      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1667      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1668      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1669      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1670      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1671      | Alternatives         | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1672      | Special Designations | The EIS ignores the BLM's own river management plan for Desolation Canyon, which provides that there is to be no drilling authorized within sight or sound of the river.  | See response to comment #139. |

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| Comment # | Topic/ Resource             | Public Comment  | BLM Response                   |
|-----------|-----------------------------|---|--------------------------------|
| 1673      | Special Designations        | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.  |
| 1675      | Special Designations        | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.  |
| 1676      | Special Designations/ Noise | The EIS does not carefully consider the impacts of noise and other drilling-related disturbances on either Desolation Canyon (a NHL) or Nine Mile Canyon, though these factors would significantly affect the experience of visitors to both of those areas.  | See response to comment #1378. |
| 1676      | Special Designations        | The EIS ignores the BLM's own river management policy for Desolation Canyon, which provides that there is to be no drilling authorized within sight or sound of the river.  | See response to comment #139.  |
| 1677      | Special Designations        | The EIS ignores the BLM's own river management policy for Desolation Canyon, which provides that there is to be no drilling authorized within sight or sound of the river.  | See response to comment #139.  |
| 1678      | Special Designations        | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.  |
| 1679      | Special Designations        | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.  |
| 1680      | Cultural/ Alternatives      | The BLM must analyze in greater detail the impacts of this project on the archeological and cultural resources of the entire area, including the impacts of dust deposition and noise. Alternatives that would prevent these impacts should be considered under NEPA procedures before a final decision on the project. | See response to comment #1537. |

## Appendix S

### Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses

| Comment # | Topic/ Resource             | Public Comment  | BLM Response                             |
|-----------|-----------------------------|---|--|
| 1681      | Special Designations        | The BLM should fully consider and analyze an alternative that designates the Desolation Canyon and Jack Canyon WIAs as "WSAs" under FLPMA, and also consider other ways to protect the wilderness values of these areas.  | See response to comment #160.            |
| 1682      | Cultural                    | The BLM must go back and take a hard look at impacts to the area's cultural resources, such as increased dust and noise, and consider ways to prevent them under NEPA.  | See response to comment #1537.           |
| 1683      | Alternatives                | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.             |
| 1684      | Alternatives                | The BLM must have a plan to mitigate dust from increased traffic. No such plan was contained in the DEIS.   | See response to comment #651.            |
| 1685      | Special Designations/ Noise | The EIS does not carefully consider the impacts of noise and other drilling-related disturbances on either Desolation Canyon (a NHL) or Nine Mile Canyon, though these factors would significantly affect the experience of visitors to both of those areas.        | See response to comment #1378.           |
| 1686      | Special Designations        | Under law, the BLM must protect WSAs until such time that Congress decides upon their designation as wilderness.  | See responses to comments #301 and #938. |
| 1687      | Special Designations        | The Green River through Desolation Canyon should be designated as a WSR.  | See response to comment #169.            |
| 1688      | Alternatives                | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.             |
| 1689      | Alternatives                | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.             |

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### Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses

| Comment # | Topic/ Resource               | Public Comment  | BLM Response  |
|-----------|-------------------------------|---|---|
| 1690      | Alternatives                  | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1691      | Alternatives                  | To address cultural resource concerns, the BLM must perform a detailed evaluation of alternative access routes to the WTP Project Area that trucks could use rather than allowing the use of the dirt road that now runs through Nine Mile Canyon and side canyons. | See response to comment #34.  |
| 1693      | Alternatives                  | The EIS should recognize that requiring all liquids to be piped from well pads will result in more surface disturbance than trucking water from the WTP Project Area.   | Water pipelines would be co-located within the same ROW as gas gathering lines and would not result in increased surface disturbance.   |
| 1694a     | Alternatives                  | The EIS should recognize that burying pipelines will result in more long-term impacts to the area than laying them on the surface.  | <p>The impacts of buried vs. surface-laid pipelines can be evaluated by comparing Alternative A and Alternative E. It should be noted that buried pipelines would result in fewer long-term impacts to some resources as discussed in the various resource sections in Chapter 4. For example, as discussed in Section 4.6 and 4.15, burying pipelines, rather than laying them on the surface, can reduce health and safety risks. In addition, assuming reclamation efforts are successful, burying pipelines could reduce long-term visual contrasts and reduce wildlife habitat fragmentation.</p> <p>These differences will be carefully considered by the Decision Maker when determining what level of surface-laid and/or buried pipeline would be required/approved in the ROD for this project.</p> |
| 1694b     | Alternatives                  | The EIS should recognize that year-round drilling will be better both economically and in decreasing long-term surface disturbance over the LOP.  | The social and economic impacts of year-round drilling vs. drilling with seasonal restrictions can be found by comparing the alternative analyses in Section 4.13 of the EIS.   |
| 1695      | Special Designations          | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.   | See response to comment #1289.  |
| 1696      | Recreation/<br>Socioeconomics | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.  | See response to comment #119.   |
| 1697      | Water                         | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river.          | See response to comment #988.   |
| 1698      | Alternatives                  | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.  | See response to comment #1539.  |

## Appendix S

### Public and Cooperating Agency Comments on the WTP Natural Gas Full Field Development Plan Draft EIS and BLM Responses

| Comment # | Topic/ Resource                | Public Comment   | BLM Response                   |
|-----------|--------------------------------|--|--------------------------------|
| 1699      | Special Designations           | Every draft alternative improperly infringes upon the Desolation Canyon Wild and Scenic River Study Area and the Jack Canyon WSA.  | See response to comment #1289. |
| 1700      | Special Designations/ Wildlife | Before any alternative is selected, all wilderness resource and wildlife surveys and studies must be completed, and adverse impacts to these resources from gas drilling must be considered.   | See response to comment #986.  |
| 1701      | Recreation/ Socioeconomics     | Each of the alternatives fails to take into account the adverse impact this gas field development will have on the 6,000 do-it-yourself and commercial river runners who use the Green River corridor each year.   | See response to comment #119.  |
| 1702      | Water                          | Every alternative is deficient in explaining how toxic material, either through liquid spill, air borne contamination, or solid waste, will be contained to avoid being spilled into the Green River from drill sites within one-half mile from the river. | See response to comment #988.  |
| 1703      | Alternatives                   | The EIS does not include a true "No Action" Alternative. The BLM must analyze a "No Action" Alternative with no drilling on State and private lands, and no access across Federal lands.   | See response to comment #1539. |